



YOUR WASTE **YOUR CASH** **YOUR CHOICE**

Milton Keynes Waste Development Plan Document

ISSUES AND OPTIONS

August/September 2005

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1 INTRODUCTION

Purpose

This paper is not just a consultation document. Hopefully it will provoke your thinking about the increasing pressures that we all have with waste. By responding to our key questions you will be a part of making decisions of how we resolve and take forward our (that's yours and mine) waste issues.

The council is also updating its Municipal Waste Strategy (detailed below) with joint engagement with the Waste Development Plan Document (See foreword for the list of documents in this consultation process). This paper is a part of the process of the Waste Development Plan Document. This is a key document, which will consider the options identified in the Municipal Waste Strategy and make decisions on the locations of these facilities. The Plan period will consider the next 10 years.

Municipal Waste Strategy (MWS)

Milton Keynes Council as a unitary authority is not statutorily obliged to prepare a Municipal Waste Management Strategy. However, it is considered that it is important to prepare one because: the Strategy was last updated in 2002, and several developments have occurred since then, especially the introduction of the new Landfill Allowance Trading Scheme (LATS) which places challenging allowances on the amount of biodegradable municipal waste that can be landfilled in the future. A strategy is also expected by tenders in the future waste procurement process and by grant awarding bodies. The strategy is therefore being updated in the light of LATS and the need to procure new waste management contracts for 2007.

The main focus for the strategy is for the period to 2020, the period covered by the Landfill Allowance Trading Scheme which is subject to targets, allowances and fines. However, the strategy will also be looking ahead to 2031, since the city is to become a major focus of housing growth over this period.

Waste Development Plan Document (WDPD)

The Government has introduced a new system of preparing plans through the Planning Act 2004, which involves the replacement of Local Plans with Local Development Plan Documents. The provisions of the Act change the way in which plans are prepared, with an emphasis on speedier production of plans and full community and stakeholder involvement.

The existing Waste Local Plan (Waste Local Plan for Buckinghamshire 1994-2006 adopted March 1997) will therefore be replaced by the Milton Keynes Waste Development Plan Document (WDPD). The Waste Development Plan Document will be contained in a portfolio, known as a Local Development Framework (LDF). The LDF will comprise of local development documents, which include development plan documents, that are part of the statutory development plan and supplementary planning documents which expand policies set out in a development plan document or provide additional

detail. The LDF will also include a statement of community involvement (SCI), a local development scheme (LDS) and an annual monitoring report.

The Waste Development Plan Document sets out how the waste management requirements for Milton Keynes will be achieved and it will identify sites for facilities to meet these requirements. It will contain policies and proposals to guide the waste management industry and planning authority on making decisions in relation to waste management development proposals. Unlike the MWS, the Plan covers not just municipal waste, but commercial and industrial and construction and demolition waste. The Plan should encourage sustainable waste management practices through the development of policies and proposals to guide actions and decisions. Traditionally the Plan dealt with specifically land-use matters. Planning Policy Statement 1: Delivering Sustainable Development (ODPM, 2005) provides scope to adopt a spatial approach to planning which goes beyond the use and regulation of land, *'The WDPD will include policies which can impact on land use, by influencing the demands on or needs for development, but which are not capable of being delivered solely or mainly through the granting or refusal of planning permission and which may be implemented by other means'*.

Integration between WDPD AND MWS

The WDPD must integrate with the MWS and vice versa. This makes sure duplication is minimised and there is joined up thinking with waste. The linkages help in the consideration of:

- How commercial and non-municipal wastes should be tackled;
- Issues of capacity by type of treatment, scale of the facility, and the number of sites;
- Constraints on facilities development (e.g. time and land-use); and
- Those facilities whose provision is most essential in the short-term.

Timetable

Municipal Waste Strategy		Waste Development Plan Document	Plan
<i>Consultation</i>	<i>August and September 2005</i>	<i>Issues and Options</i>	<i>August and September 2005</i>
Adoption	December 2005	Preferred Options	April 2006
		Submission to Secretary of State	January 2007
		Pre-examination meeting	July 2007
		Examination	September 2007
		Estimated adoption	February 2008

2 POLICY

There is a hierarchical structure of guidance and plans covering national, regional and local planning, which includes:

- National Planning Policy Statements and Guidance Notes
- Regional Spatial Strategies
- Local Development Frameworks

It is important that the WDPD takes these into account. In terms of the national and regional statements, notes and strategies, these are key to formulating local policy. In terms of the local context, the WDPD should reflect the aims and objectives of the Community Strategy and other planning policy as well considering other local strategies.

National Context

National Waste Strategy 2000

This is one of the key documents shaping the existing and future waste management in England and Wales. It establishes the national framework for moving away from landfill towards sustainable waste management alternatives in the UK. The policy document is the Government's response to obligations on waste issues contained in European Law. Accordingly, it is both a national waste management plan (as required by Council Directives 72/442EEC, as amended by 91/156/EEC and 96/350/EC Framework Directive on Waste) and a strategy to divert waste away from landfill (Council Directive 1999/31/EC).

It reflects the need to reduce the quantity of waste disposed of to landfill and sets out the relevant targets for the UK in relation to the Landfill Directive as follows:

- by 2010 to reduce biodegradable municipal waste landfilled to 75% of that in 1995
- by 2013 to reduce biodegradable municipal waste landfilled to 50% of that in 1995
- by 2020 to reduce biodegradable municipal waste landfilled to 35% of that in 1995.

To achieve these targets will require a significant change in the UK's current waste management and disposal methods. The Government has enacted the Waste and Emissions Trading Act, which restricts the amount of biodegradable municipal waste that local authorities can send to landfill by a system of tradable allowances – the Landfill Allowance Trading Scheme (LATS).

The scheme commenced on 1st April 2005. Each Waste Disposal Authority (WDA) has been given a landfill allowance for biodegradable municipal waste for each year to 2020,

based on the targets that the UK has to meet. It will be possible to trade, bank and borrow allowances. The allowance will be based on the contribution that each WDA made to total municipal waste arisings in 2002/3. Therefore local authorities which rely heavily on incineration are likely to have allowances to sell. Those with high population growth are likely to be disadvantaged, since no allowance will be made for population growth. Fines for exceeding allowances are set at £150/tonne plus a share of the UK's fine if exceeded in a target year.

Table 1 shows the situation if the council makes no change to its present activities. It can be seen that the council must not be complacent. Due to an increasing population and the amount of waste generated per head of population also increasing (though it has been assumed that this will decrease over time), the overall amount of Biodegradable Municipal Waste (BMW) increases while landfill allowances decrease. If the council makes no change to its current diversion of BMW from landfill, it is likely that by 2020 it could be incurring fines of over £11million per year. The fines could be greater than those shown in 2010, 2013 and 2020 if the UK incurs a fine as a result of missing Landfill Directive targets.

Even if were possible for the council to recycle or compost 100% of all possible biodegradable material, i.e. paper, putrescibles, wood and textiles (e.g. assuming that all residents participated in separate collection schemes and 100% accurately separated their recyclables), it would still exceed its landfill allowances by 2018 – see chart 3.1.2

Options for avoiding fines include:

- Purchasing allowances from other waste disposal authorities, which have excess
- Increasing separate collections of kitchen and garden waste and composting or anaerobically digesting it
- Sending some or all of the residual waste to an incinerator, or other thermal treatment plant which produces no biodegradable municipal waste for landfill, though this could be contrary to current Council policy
- Using forms of mechanical biological treatment to reduce the amount of residuals being landfilled (longer term only)

This is discussed further in the Municipal Waste Strategy Consultation Draft.

Table 1 Estimated fines if the there is no change to the current circumstances

year	2005/6	2006/7	2007/8	2008/9	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
population (projected)	219,240	224,300	230,640	237,580	244,410	250,060	255,760	259,690	263,710	267,800	272,050	276,180	280,400	284,670	289,090
assumed "social growth" rate%	1.5	1.5	1.5	1.5	1.5	1.5	1	1	1	1	0.5	0.5	0.5	0.5	0.5
estimated total msw arisings, tonnes	127,950	132,867	138,672	144,987	151,393	157,216	162,407	166,552	170,821	175,206	178,876	182,499	186,214	189,995	193,910
BMW @ 68%, tonnes	87,006	90,349	94,297	98,591	102,947	106,907	110,437	113,255	116,159	119,140	121,636	124,100	126,626	129,197	131,859
current diversion of BMW: 26.6%, tonnes	23,144	24,033	25,083	26,225	27,384	28,437	29,376	30,126	30,898	31,691	32,355	33,010	33,682	34,366	35,074
BMW: landfilled, tonnes	63,863	66,317	69,214	72,366	75,563	78,470	81,061	83,129	85,260	87,449	89,281	91,089	92,943	94,831	96,784
landfill allowances for bmw, tonnes	66,028	62,482	57,755	51,845	44,753	39,772	34,790	29,809	28,530	27,252	25,973	24,694	23,416	22,137	20,858
Difference, tonnes	2,165	3,835	11,459	20,521	30,810	38,698	46,271	53,320	56,730	60,197	63,308	66,395	69,527	72,694	75,926
balance assuming banking, no borrowing, tonnes	2,165	1,669	11,459	20,521	30,810	38,698	46,271	53,320	56,730	60,197	63,308	66,395	69,527	72,694	75,926
Fine, £k	0	250	1,719	3,078	4,622	5,805	6,941	7,998	8,510	9,029	9,496	9,959	10,429	10,904	11,389

(From Municipal Waste Strategy Consultation Draft)

The National Strategy also sets targets for reducing the amount of household and industrial/commercial waste going to landfill until 2015, as well as for the recovery of municipal waste, the recycling and composting of household waste and the reduction of household waste. The specific targets, from which each local authority has been set statutory targets for recycling/composting, are:

- To recover value from 40% of municipal waste by 2005;
- To recover value from 45% of municipal waste by 2010;
- To recover value from 67% of municipal waste by 2015.

Statutory targets under 'Best Value':

- to recycle or compost at least 25% of household waste by 2005
- to recycle or compost at least 30% of household waste by 2010
- to recycle or compost at least 33% of household waste by 2015

Each local authority now has statutory recycling targets. The targets are measured by best value performance indicators (targets set by the government on local authorities to deliver services by the most effective, economic and efficient means available) 82a and 82b (% of household waste recycled and % of household waste composted, respectively) added together. Failure to meet the statutory targets could lead to intervention by the Secretary of State.

For Milton Keynes the targets set in Waste Strategy 2000 were:

- to recycle or compost 33% of household waste by 2003/4
- to recycle or compost 36% of household waste by 2005/6

In 2003/4 Milton Keynes Council had a recycling rate of 24%. It had therefore fallen short of the first target. In December 2004, the Secretary of State announced that targets would henceforth be capped at 30%. It is likely that Milton Keynes Council will be close to 30% by 2005/6.

The Waste Strategy 2000 is currently being reviewed. Consultation documents were issued in November 2004 called 'Changes to Waste Management Decision Making Principles in Waste Strategy 2000'.

Planning Policy Statement 10: Planning for Sustainable Waste Management July 2005

Planning Policy Statement 10 (PPS10), which replaced PPG10 states that Government Policy on waste is to protect human health and the environment by producing less waste and by using it as a resource wherever possible. *'Through more sustainable waste management, moving the management of the waste up the 'waste hierarchy' of reduction, re-use, recycling and composting, using of waste. This means a step-change*

in the way waste is handled and significant new investment in waste management facilities. The planning system is pivotal to the adequate and timely provision of the new facilities that will be needed' (paragraph 1).

PPS10 also requires the Regional Planning Body to prepare a Regional Spatial Strategy (RSS), which should include strategy for waste management and look forward for 15-20 years. Waste Planning Authorities should set out policies and proposals for waste management in line with the RSS and ensure there are sufficient opportunities for the provision of waste management facilities in appropriate locations. Any plan should look forward for a period of at least ten years and should be integrated effectively with the municipal waste strategy. The key planning objectives are:

- help deliver sustainable development through driving waste management up the waste hierarchy, addressing waste as a resource and looking to disposal as the last option but one which must be adequately catered for;
- provide a framework in which communities take responsibility for their own waste, and enable sufficient and timely provision of waste management facilities to meet the needs of their communities;
- help implement the national waste strategy, and supporting targets, are consistent with obligations required under European legislation and support and complement other guidance and legal controls such as those set out in the Waste Management Regulations 1994;
- help secure the recovery or disposal of waste without endangering human health and without harming the environment, and enable waste to be disposed of in one of the nearest appropriate installations;
- reflect the concerns and interests of local communities, the needs of waste collection authorities, waste disposal authorities and business and encourage competitiveness;
- protect green belts but recognise the particular locational needs of some types of waste management when defining detailed green belt boundaries and, in determining planning applications, that these locational needs, together with the wider environmental and economic benefits of sustainable waste management are material considerations that should be given significant weight in determining whether proposals should be given planning permission;
- ensure the design and layout of new development supports sustainable waste management.

(paragraph 3)

The Regional Context

The South East Plan and RPG9

The South East England Regional Assembly (SEERA) published the Regional Waste Management Strategy in Spring 2004, following earlier public consultation. It was subject to a Public Examination in Autumn 2004. The Panel's report was published in January 2005 and the proposed changes will be published shortly for public consultation. Following the consideration of comments arising out of that consultation, it will be published as changes to Regional Planning Guidance note 9 (RPG9). This strategy will become a part of the development plan for the region and has to be taken into account in preparation of the WDPD.

Particularly significant policies for Milton Keynes are Policy W1, which seeks to reduce growth in waste to 1% per annum by 2010 and 0.5% by 2020. This may be difficult to achieve in Milton Keynes due to the high rate of housing growth planned.

Also of significance is Policy W3 which states that waste authorities and waste management companies should provide management capacity equivalent to the amount of waste arising within the regions boundaries plus a declining amount of waste from London. The Milton Keynes area is a net importer of waste from London. Policy W4 requires waste planning authorities to plan for net self-sufficiency, but also allowing a degree of flexibility, taking into account the proximity principle.

The targets for recovery and diversion are particularly challenging. The Panel have recommended that the list of options for handling waste given in Policy W5 be made into a waste hierarchy. These are:

1. Re-use
2. Recycling
3. Mechanical and/or biological processing (to recover materials and produce compost, soil conditioner or inert residue)
4. Thermal treatment (to recover energy)

The Draft South East Plan was published for consultation on the 24th January 2005. The South East Plan is the overarching planning strategy for the South East prepared by the South East England Regional Assembly with some input from Local Authorities. This Plan will supersede RPG9, once published as the Regional Spatial Strategy. This incorporates the 20 policies on waste from the Regional Waste Management Strategy. This Plan covers policies such as on the environment, housing, employment and transport and includes the identification of a number of sub regional areas. The Milton Keynes / Aylesbury Vale area is identified as a sub-region and as such is subject to specific policies and proposals to oversee the future development of MK (and Aylesbury).

The Sub-Regional Context

Milton Keynes & South Midlands Sub-Regional Strategy

The Milton Keynes & South Midlands Sub-Regional Strategy (MKSM SRS) was published in March 2005. The purpose of the document is to provide a clear, agreed sub-regional strategy for the period 2001-2021, and a long-term vision for the sub-region towards the year 2031, as part of the Government's Sustainable Communities Plan.

It can be seen that the growth proposed is much greater than Milton Keynes has seen to date and that this will pose particular challenges for waste management in the area. At the time of writing it is not clear where and when funding for extra waste management facilities will be made to accommodate this growth.

The Local Context

The Milton Keynes Community Strategy

The Milton Keynes Community Strategy was published in May 2005. It includes a set of values that will guide the growth of the borough. It contains the vision for Milton Keynes and outlines the work that has to be done to build the city over the next thirty years. One of the key purposes and key challenges for 2005-2008 is the zero waste policy. Performance indicators related to waste are:

- Recycling facilities - % of the people satisfied with waste recycling facilities
- Household recycling - % of the total tonnage of household waste arising which has been recycled
- Waste - total household waste generated per head of population

The WDPD is a key component in the delivery of the community strategy setting out its spatial aspects where appropriate and providing a long-term spatial vision.

Milton Keynes Long-Term Sustainable Growth Plan

The purpose is to provide a long-term Growth Plan and strategic policy framework for Milton Keynes that clarifies the direction for growth and guides the public sector in making land use planning decisions, including the appropriate location of development. The project is put forward to assist in preparing local development plan making process. However, it is not a statutory plan.

3 MUNICIPAL WASTE STRATEGY CONSULTATION DRAFT (MWSCD) GUIDING PRINCIPLES

The proposals and policies for the Waste Development Plan Document must be consistent with the principles of the Municipal Waste Strategy Consultation Draft (MWSCD). For further information see the MWSCD. The guiding principles for MWSCD are:

- **Zero Waste**

The vision of "Zero Waste" is to reduce the production of waste by ensuring that products are made to be reused, repaired or recycled/composted. What is now called waste should instead be regarded as a mixture of resources to be used again to their full potential, not as something to be thrown away. It aims to reduce residual waste i.e. waste that cannot be reused, recycled or composted to zero.

- **No Incineration**

9 July 2002 Milton Keynes Cabinet stated:

'That this Council is opposed to the incineration of commercial and household waste anywhere within the Borough of Milton Keynes, and will maintain this position unless or until such time as residents are convinced that it is safe'.

Until it is adequately demonstrated that incineration is safe this effectively reduces the types of energy recovery processes that can be used within Milton Keynes.

- **Waste Hierarchy**

Reduce – waste should always be reduced at source wherever possible

Re-use - if waste cannot be reduced, it should be re-used

Recycle -If it cannot be re-used then it should be recycled or composted.

Reduction and stabilisation prior to landfill - If waste cannot be recycled or composted, then appropriate treatments for residual wastes:

- should result in solid residues that are no longer biodegradable and can be placed in inert landfills ("inert" and "biodegradable" being defined by the landfill directive)
- should permit further recovery of materials from mixed residuals, e.g. non-biodegradables such as metals, or aggregate-type materials
- may involve the recovery of energy (e.g. via anaerobic digestion), but not necessarily required to do so,

- should aim to reduce the overall toxicity of the waste, and not produce hazardous substances as a result of the treatment process itself
- **Reduction in the hazardousness of waste**

The Council will strive to reduce the hazardousness of waste, which is produced and disposed of within the Borough of Milton Keynes.
- **Overall good environmental practice and sustainability**

When planning for waste management, the Council will take into account sustainability and other environmental factors, and plan for the best environmental practice. This includes reviewing transport and energy use, the use of the 'proximity principle' (i.e. the principle that waste should be treated as close to its place of arising as possible), the 'Best Practicable Environmental Option' (see glossary for full definition), protection of areas with presumptions against development and good quality agricultural land, and the conservation of resources such as minerals and water. If life cycle analysis is available, this should also be reviewed. Requirements to carry out a BPEO may be superseded in the future by the requirement to carry out a Strategic Environmental Assessment (SEA) instead.
- **Local self-sufficiency**

Milton Keynes will aim for self-sufficiency in waste disposal within its own borders, but will not exclude cross-border movements of waste, into or out of local authorities immediately bordering Milton Keynes, particularly if these are in co-operative partnerships with bordering local authorities, where they further the aims of 'zero waste', or where a BPEO can be demonstrated. Generally, such movements would not be further than 30 miles from Central Milton Keynes. The transport of re-useable or processed recyclable or compostable materials to their place of sale may be further than this distance. Milton Keynes will support the aims of self-sufficiency of other regions or waste disposal authorities.
- **An Integrated Waste Management Policy**

The Council will use the principle of 'Integrated Waste Management' - i.e. the integration of different waste management methods to give the greatest environmental benefit.
- **Best Value**

The Council will obtain best value by securing economic, efficient and effective services. This will include the use of benchmarking (compare to other local authorities) as a tool. It will also include seeking external funding where appropriate and available in the form of grants, allowances, planning gain, private finance initiative etc.

- **Flexibility and annual review**

The strategy will be subject to an annual review by officers, and a three-yearly review by Councillors, to determine progress and update it in the light of new technology, new legislation, or other significant new developments such as a large change in the size or demographics of the population.

- **Co-operation and Partnerships**

The Council will co-operate, and where appropriate, form partnerships with other local councils, the private sector, the voluntary sector or any other appropriate organisation, to increase the effectiveness of its waste strategy.

- **Educating and Influencing**

The Council will use its influence, particularly in its roles as an educator, an information provider, a purchaser, a major supplier of contracts, a planner, and an enforcer to increase the effectiveness of its waste strategy.

The Options

The options for treatment and disposal (of which the Waste Development Plan Document will consider and plan for) are contained with Section 4 of the Municipal Waste Strategy. See this section for more detailed explanation and assessment.

In summary, there are thirteen options (see table 2 below): 5 Mechanical Biological Treatment (MBT) options; 3 Anaerobic Digestion options; 2 Alternative Thermal Treatment (ATT) options; 2 autoclave options and conventional mass-burn incineration were compared. It should be emphasised that it is not current Council policy to incinerate municipal waste in Milton Keynes, and that this option was evaluated for comparison only.

With regard to landfill diversion, three options failed to divert sufficient BMW from landfill to meet landfill allowance targets. These were: 1c (Biodrying and landfilling); 2b (anaerobic digestion and landfilling) and 5b (autoclaving and landfilling). The anaerobic digestion options gave the best extra recycling/composting diversion rates, at around 10% extra. However, the options with significant thermal treatment – that is the MBT biodrying options which produce a refuse derived fuel, traditional mass burn incineration and the alternative thermal treatments gave the best diversion of BMW from landfill and put the Council in the most secure position with regard to landfill allowances. From a financial point of view, only incineration and the alternate thermal treatments were less costly than buying landfill allowances from other waste disposal authorities at £30/tonne. However, the cost of allowances, currently trading at £20/tonne may increase significantly in forthcoming years. The BPEO assessment of options which diverted sufficient BMW from landfill to meet allowances put option 1e - an MBT composting option in which the output is stabilised to meet likely non-biodegradable standards - at the top of the list. All options have various risks. A recent study by Enviro Consultants for DEFRA indicated that the delivery period for incinerators and ATT plants is longer

than that for MBT plants. However, incinerators are more likely to secure funding than the newer MBT and ATT technologies, which have little track record in the UK.

Table 2 Disposal Technology combinations that have been modelled

1a	MBT + ATT + IVC	Mechanical Biological Treatment + Advanced Thermal Treatment of RDF + In-Vessel Composting of waste derived compost.
1b	MBT + FBG+ IVC	Mechanical Biological Treatment + Energy from Waste/ Fluidised Bed + In-Vessel Composting of waste derived compost.
1c	MBT + IVC + Lf	Mechanical Biological Treatment + In-Vessel Composting of waste derived compost + Landfill
1d	MBT + IVC + RDF to 3 rd Party	Mechanical Biological Treatment + In-Vessel Composting of waste derived compost + RDF treated in a third party thermal facility
1e	MBT stabilised	Mechanical Biological Treatment with residue stabilised to comply with Landfill Directive requirements
2a	MT & AD + ATT	Mechanical Treatment + Anaerobic Digestion of waste derived compost + Advanced Thermal Treatment of RDF + maturation of digested compost product
2b	MT & AD + Lf	Mechanical Treatment + Anaerobic Digestion of waste derived compost and kerbside organics + Landfill
2c	MT & AD + RDF to 3 rd Party	Mechanical Treatment + Anaerobic Digestion of waste derived compost and kerbside organics + RDF treated in a third party thermal facility
3a	ATT	Advanced Thermal Treatment
3b	ATT (Multi)	Advanced Thermal Treatment (Modules at multiple sites)
4	EfW	Energy from Waste recovery
5a	AC + ATT	Autoclave + Advanced Thermal Treatment
5b	AC + Lf	Autoclave + Landfill

4 WASTE DEVELOPMENT PLAN DOCUMENT STRATEGY

The proposed principle aims for the Waste Development Plan Document are:

- **To deliver sustainable development through driving waste management up the waste hierarchy.**
- **To implement and be consistent with the National Waste Strategy, the Regional Waste Management Strategy and the Milton Keynes Municipal Waste Strategy.**
- **To ensure waste is disposed of as near as possible to its source in line with the Proximity Principle and net self-sufficiency.**
- **To provide sufficient sites for waste management facilities of the right type, in the right place for the right time.**
- **To minimise the adverse effects of waste recovery, disposal and transportation on the quality of life of nearby residents, avoiding risks to human health.**
- **To protect and to minimise the adverse effects of recovery, disposal and transportation of waste on environmental resources and balance these against the need for development.**
- **To ensure the layout and design of new development supports sustainable waste management.**

These principles will guide the direction of the Waste Development Plan Document.

Do you consider that these are the right principle aims? Should any of them be deleted? Are there any other aspects, which should be included?
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To deliver sustainable development through driving waste management up the waste hierarchy.

The Waste Hierarchy in National Waste Strategy 2000 considers that the top priorities are: minimisation; re-use; and recycling/composting. However there is a difference of emphasis in the lower priorities particularly relating to the energy recovery element between the national and Milton Keynes's Strategies. Biological types of energy recovery – i.e. anaerobic digestion are preferred over thermal types of energy recovery such as incineration. In addition the relatively new technology of Mechanical Biological treatment is preferred above thermal treatments due to the council's no incineration policy (see section 3).

Table 1 The Waste Hierarchy

Milton Keynes	Conventional
Reduce waste should always be reduced at source wherever possible	Reduce waste should always be reduced at source wherever possible
Reuse if waste cannot be reduced, it should be re-used	Reuse if waste cannot be reduced, it should be re-used
Recycle/Compost If it cannot be re-used then it should be recycled or composted	Recycle/Compost If it cannot be re-used then it should be recycled or composted
Reduce and Stabilise (with or without energy recovery) If waste cannot be recycled or composted, then appropriate treatments for residual wastes	Recover Energy if none of the above are possible, then energy should be recovered from the waste
Dispose/Landfill finally, if none of the above are possible, then waste must be disposed of to landfill	Dispose/Landfill finally, if none of the above are possible, then waste must be disposed of to landfill

In any integrated waste management strategy there needs to be a mix of facilities which must include provision for disposal of residual waste as well the provision of other options further up the hierarchy.

To implement and be consistent with the National Waste Strategy, the Regional Waste Management Strategy and the Milton Keynes Municipal Waste Strategy.

It is important that the Waste Development Plan Document, part of the Local Development Framework, accords with the national and regional guidance and strategies.

To ensure waste is disposed of as near as possible to its source in line with the Proximity Principle and net self-sufficiency.

This principle considers that most waste should be treated, recovered or disposed close to where it is generated and as near as possible to its production. This therefore reduces time, energy, expense of long distance transport, all its associated environmental effects such as noise, congestion and air pollution, and also the possibility of accident en route. Simple geographical proximity is not the only factor. Good rail links or river transport, for example, might make it better to travel further to a facility than use a more local road based option. There may also be circumstances in which a national facility for very particular waste meets the proximity principle.

In some circumstances, it is appropriate for centralised facilities, which take waste from outside the immediate area, for example the use of rail as means of waste transfer is not generally economic over short distances. Similarly achieving certain economies of scale can be critical to the financial viability of certain thermal and mechanical processing operations.

The Regional Waste Management Strategy proposes regional net-sufficiency, through providing for waste management capacity equivalent to the waste forecast to require management within its boundaries, plus an allowance for disposal of a declining amount of waste from London.

London currently has limited capacity for waste processing and recovery (with recycling dominated by construction and demolition capacity) and very little landfill capacity. The Regional Waste Management Strategy assumes that London's exports to the region will decline over the period of the strategy and be limited to landfill waste and use of materials in landfill restoration that cannot be recycled or recovered within London, or residues of processing and treatment.

Movements of waste between sub-regions will occur and are necessary to reduce long distance transport. The patterns of movement are particularly complex for commercial and industrial waste, with two way movements between most areas reflecting waste being transported to the nearest site. The pattern for municipal waste movement is simple with a higher degree of self-sufficiency in many areas. Small amounts of Milton Keynes's municipal waste is deposited in Bedfordshire at Brogborough and Stewartby Landfill Sites. Milton Keynes is a relatively small area, and to obtain economies and efficiencies of scale, it may be necessary to combine waste activities with neighbouring local authorities. It is also too far away from much of the south-east (particularly that south of the Thames) for co-operation to be viable.

The neighbouring authority of Bedfordshire, which is in the East of England Region, aim to achieve county self-sufficiency and to reduce the quantity of imported waste over their plan period.

Do you think: (tick one of below)

That the imports and exports into/out of Milton Keynes should be in balance before 2016?

That they should be in balance by 2016?

That they should be in balance later than 2016?

Waste should be dealt with close to where it was disposed off?

Do you think that only waste for landfilling should be accepted from London & other local authorities?

Yes / No/ Not Sure

If No/not sure – why is this?

Do you think that the waste for landfilling from London and other places should have been subject to recycling and other recovery processes?

Yes / No/ Not Sure

To provide sufficient sites for waste management facilities of the right type, in the right place for the right time.

This principle identifies areas where waste management facilities would generally be acceptable, including the criteria used to determine acceptability. It also highlights where development would generally be unacceptable unless there is an overriding need.

The first step is to refer to the Milton Keynes Municipal Waste Strategy and to consider the needs of facilities and at what stage these are required. Other considerations are with market.

The Regional Waste Management Strategy considers that the planning system in the region must adopt a much more responsive and effective approach to identifying sites for new waste management facilities. The Municipal Waste Strategy and joint questionnaire considers the range of technologies and options for dealing with Milton Keynes's municipal waste.

Current Waste Management Facilities in Milton Keynes

Materials Recycling Facility 'MRF'

Colts Holm Road, Old Wolverton

This facility is owned by Milton Keynes Council and operated by Cutts Brothers (Doncaster) Ltd until 2007. The facility was built in 1992/3 to handle dry recyclables only with a capacity of 32,000 per annum. However in April 2005 a major fire occurred at the facility and, as a consequence its future is now under review.

Composting Facilities

Home Farm, Castlethorpe

Crossroads Farm, Haversham

Bletchley Landfill Site (not operational)

Frosts Garden Centre (for their own use)

The two farms compost separate garden waste only. In each case the compost is used as an agricultural fertiliser. Each farm differs in its planning requirements, especially vehicle numbers and the quantities of waste that it can accept. It is possible that more farms may achieve planning permission in the near future.

It is likely that licensing requirements will make on-farm composting more expensive in the future; however, it is likely to be less expensive than in-vessel composting.

There are no composting facilities in Milton Keynes currently available capable of handling kitchen waste – i.e. which would meet the requirements of the Animal Byproducts Regulations.

Waste-to-Energy

There are currently no waste-to-energy plants of any type (incineration, pyrolysis, anaerobic digestion etc.) accepting household waste within in Milton Keynes.

Bletchley Landfill Site does however recover some of the methane gas for energy generation.

Mechanical Biological Treatment Plants

A Planning application for a biodrying plant at Bletchley Landfill Site has been withdrawn; consequently, there are no MBT plants within Milton Keynes.

Landfill sites

Bletchley Landfill Site (wide range of waste)

Broughton Barn Quarry (inert)

Caldecote Farm Quarry (inert - not operational)

Passenham Quarry (inert - not operational)

Although a wide range of waste landfill space is becoming less available in the area, Milton Keynes has relatively more landfill space left than most other local authorities in the UK. However Bletchley Landfill Site's capacity will be reduced by:

- the amount of waste taken into the site from other Councils (particularly from the northern home counties and London area) and the amount of commercial waste which is taken in there.
- the rate of closure of other local landfill sites, particularly that at Brogborough, which has limited life left.

- the amount to which waste reduction and recycling measures affect the levels of waste arisings in all sectors.

Historically Bletchley was also able to accept small amounts of certain special wastes and in particular is the most local landfill that accepted asbestos. However the requirements of the Landfill Directive prevented co-disposal of non-hazardous and hazardous wastes from July 2004. The asbestos needs to be placed in a separate hazardous waste “cell” on the site. At the time of writing it is unclear when this cell will be operational and consequently it is being transported a considerable distance elsewhere.

Community Recycling Centres

Bleak Hall

New Bradwell

Newport Pagnell

Sewage Treatment Plants

Cotton Valley Treatment Works

Waste Transfer

Old Wolverton Road

Chesney Wold

Clinical Waste Treatment

Lyon Road (not operational)

Inert/aggregate Recycling

Broughton Barn Quarry

Bletchley Landfill Site (not operational)

Chesney Wold (not operational)

Metal Recyclers/ Vehicle Dismantlers

New Bradwell

Bletchley

Chesney Wold

Site Identification for Waste Management Facilities

When considering applications for new sites, applicants should be able to demonstrate that the envisaged facility will not undermine the waste planning strategy through prejudicing movement up the waste hierarchy.

PPS10 considers when searching for sites and areas suitable for new or enhanced waste management facilities, waste planning authorities should consider:

- opportunities for on-site management of waste where it arises;
- a broad range of locations including industrial sites, looking for opportunities to co-locate facilities together and with complementary activities.

In deciding which sites and areas to identify for waste management facilities, waste planning authorities should:

- (i) assess their suitability for development against each of the following criteria:
 - the extent to which they support the policies in PPS10
 - the physical and environmental constraints on development, including existing and proposed neighbouring land uses;
 - the cumulative effect of previous waste disposal facilities on the well-being of the local community, including any significant adverse impacts on environmental quality, social cohesion and inclusion or economic potential;
 - the capacity of existing and potential transport infrastructure to support the sustainable movement of waste, and products arising from resource recovery, seeking when practicable and beneficial to use modes other than road transport.
- (ii) give priority to the re-use of previously-developed land, and redundant agricultural and forestry buildings and their curtilages.

The Regional Waste Management Strategy considers in its policy W17, that development should set out criteria to guide the location of waste management facilities to sites with the following characteristics:

- previous or existing waste management land use; or
- previous or existing industrial land use; or
- contaminated or derelict land; or
- agricultural buildings; and
- accessibility from existing urban areas or major new or planned development; and

- that have or will have good transport connections including, where possible, rail or water.

The Panel report of the Public Examination of the RWMS consider that ‘surrounding yards’ should be included with agricultural buildings, and on or adjoining sewage treatment works, and active mineral working sites and capability of meeting a range of locally based criteria should be included to the policy. The Panel also consider that the urban area and good transport criteria should be put at the top of the criteria.

In the past, landfilling has taken place following mineral extraction. This is the case in terms of the landfill sites in Milton Keynes. Other waste facilities located at the sites are associated to the life of the landfill site, such as composting and recycling facilities. However, these are temporary and there is urgency now, moving away from landfill, to provide permanent facilities.

To meet the Proximity Principle, facilities will need to be located close to the source of waste. This highlights the need to be closer to urban areas. However there is increasing pressure to find sites in Milton Keynes. There is a lack of brownfield sites. Land allocated to industrial use is in short supply. The Council itself only owns four pieces of land allocated to waste management. Three of these are Community Recycling Centres and the fourth is the MRF site of just over 2 hectares. There are only really two industrial estates in Milton Keynes which contain such users as concrete batching plants. These are at Bleak Hall and Colts Holm Road. Other employment areas are considered to be too large for smaller recycling facilities, generally expensive for all facilities and difficult to convert the existing buildings for waste use. The new employment areas are increasingly being sold for ‘big sheds’, storage and distribution and views have been expressed that waste facilities next to such sheds would devalue the sites. Again land value here is high. There is also consideration of the proximity of residential properties, which is considered under the next principle.

Where could facilities be located? Should more smaller industrial estates been identified for such uses? Should we be looking to more rural locations, with the reuse of agricultural buildings? Would this meet highway safety? Should we be looking at permanent facilities where there will be more investment? As there is much difficulty finding sites, should we be safeguarding existing waste management facilities and consider more safeguarding when sites have been found?

This subject raises much debate.

Where do you think these sites should be? Rank your choice in order of preference with 1 being the most preferred and 7 the least preferred.

Existing landfill sites	
Existing waste management land use	
Previous or existing industrial land use	

Contaminated or derelict land	
Agricultural buildings or surrounding yards	
On or adjoining sewage works	
Open countryside	

Have you any further comments or suggestions for locations for waste management facilities?

Inert Arisings

Inert material is defined as generally excavation and demolition materials arising from building and construction. It does not normally undergo any significant physical, chemical or biological changes when deposited at a landfill.

Milton Keynes, identified as a growth area is and will be expecting much development. Much of the expansion is on greenfield sites. In the past, with the introduction of the landfill tax, much surplus material for excavation of footings of buildings was left on site to avoid paying the extra tax on disposal at landfill sites. This caused particular problems, where other such schemes attracted such wastes, but were exempt from the tax, such as golf courses, screening mounds and noise attenuation bunds. It is expected with the growth in Milton Keynes that schemes of this nature will continue to come forward. The justification for these landraising schemes needs to be considered against the impact on the landscape.

Currently there is a policy against landraising should this be relaxed?

Yes

No

Not Sure

To minimise the adverse effects of waste recovery, disposal and transportation on the quality of life of nearby residents, avoiding risks to human health.

This principle is connected to the previous principle of identifying suitable locations for waste management facilities. This principle is associated with amenity protection from the impacts of waste management facilities of things such as noise, dust, odour, visibility, vehicle numbers, hours of working and highway safety issues. How close should waste management facilities be located to residential areas and schools? Can some waste management facilities be located closer than others?

Of increasing concern to local residents is the issue of risk to human health. PPS10 states (para 30):

'Modern, appropriately located, well-run and well-regulated, waste management facilities operated in line with current pollution control techniques and standards should pose little risk to human health. The detailed consideration of a waste management process and the implications, if any, for human health is the responsibility of the pollution control authorities. However, planning operates in the public interest to ensure that proposed development is acceptable and health can be material to such decisions'

Consultation should be carried out with the relevant health authorities and agencies to see whether they have any advice on the implications for health if any. The Environment Agency should be able to comment on whether a proposed development would give rise to any unacceptable health concerns. These concerns should be covered by waste management permit regime. Health issues could be covered by Environmental Impact Assessments requirements to make an assessment of the likely significant effects of projects on the environment.

To protect and to minimise the adverse effects of recovery, disposal and transportation of waste on environmental resources and balance these against the need for development.

This principle is connected to the principle on location. Sites for waste management facilities need to be considered against environmental impacts, such as: Schedule Ancient Monuments, Sites of Special Interest; Historic Gardens; conservation areas; listed buildings; wildlife sites; wildlife corridors; local nature reserves, regionally important geological sites; Areas of Attractive Landscape; best and versatile agricultural land; archaeological interest; flood plain (definitions are in annex 1 glossary). Whilst some of these constraints have overall protection, there are some where careful design could preserve and protect against such impacts. The environmental matters need to be taken into account when determining all waste development proposals. There is an important balance between the need for a waste development against any impact on the environment.

To ensure the layout and design of new development supports sustainable waste management.

This principle ensures that new development makes sufficient provision for waste management and promotes designs and layouts that secure the integration of waste management facilities without adverse impact on the street scene or, in less developed areas, the local landscape.

Nationally, average household size has fallen from 2.90 persons in 1971 to around 2.32 persons in 2002. The decline since the 1970s can be largely attributed to an increase in

the number of single person households, itself a result of divorce/separation, the greater economic independence of people enabling them to live alone, as well as an increase in the elderly population and a nationally declining birth rate.

The reduction in household size is set to continue, both nationally and in Milton Keynes. The number of single-person households is set to rise dramatically, accounting for much of the fall in average size. In 1991 only 24% of households in Milton Keynes comprised a single person. By 2001 28% of households were single-person, and this trend will continue and by 2026 it is forecast that 33% of all households in Milton Keynes will contain a single person. This is even more marked in the rural area, where over 35% of households are expected to be single person. Using these forecasts, the average household size in Milton Keynes is expected to fall to just 2.17 in 2030. It is likely that in the future houses will be smaller and that there could be more flats. This raises questions for planning for waste collection in relation to the storage of such facilities as recycling boxes and bags and access for refuse collection. It is difficult to encourage participation of recycling schemes if there is not ease of access. Would residents want to carry their recycling down flights of stairs to a centralised bin store? If they did not, this could make particularly complex for collection.

Most of the population lives in the new city, which is laid out on a grid road system. The grid road system enables relatively easy traffic movement around the city and larger collection vehicles can be employed in most of the area. However this may not be the case in new developments, which may be more compact. Should layouts be considering the size of collection vehicles and how they are likely to travel round residential areas? Or should different collection measures be considered, such as with smaller vehicles? Would this mean more journeys?

The large-scale development proposed in Milton Keynes presents a major opportunity to put into practice and demonstrate best practice in waste minimization and integration of recycling into development. Development is a significant contributor to waste production, for example construction and demolition waste currently forms half of the total controlled waste stream (Regional Waste Management Strategy).

Policy D4, Sustainable Construction, of the emerging Milton Keynes Local Plan states that all new residential development exceeding 5 dwellings or incorporating gross floorspace in excess of 1000 sq m (in the case of other development) will be required to include: significant use of building materials that are renewable or recycled; waste reduction and recycling measures. Supplementary planning guidance is currently being prepared which asks for developers to provide a copy of their waste management plans and to include in their applications information on how their waste will be reduced or recycled and what recycling facilities and storage space will be provided in the development. It will go on to specify the standard requirements.

In new residential developments, what should be provided to the householder to increase recycling?

How could building be better to make storage and collection of waste easy?

In Summary

Any further comments?

ANNEX 1 Acronyms and Glossary

Acronyms

AAL	Areas of Attractive Landscape
ATT	Alternative Thermal Treatment
BPEO	Best Practicable Environment Option
DEFRA	Department of Environment, Food and Rural Affairs
GOSE	Government Office for the South East
LATS	Landfill Allowance Trading Scheme
LDF	Local Development Framework
LDS	Local Development Scheme
MBT	Mechanical Biological Treatment
MKSM SRS	Milton Keynes & South Midlands Sub-Regional Strategy
MRF	Materials Recycling Facility
MWS	Municipal Waste Strategy
MWSCD	Municipal Waste Strategy Consultation Draft

ODPM	Office of the Deputy Prime Minister
PPG	Planning Policy Guidance
PPS	Planning Policy Guidance
RPG	Regional Planning Guidance
RPB	Regional Planning Body
RPG	Regional Planning Guidance
RSS	Regional Spatial Strategy
SCI	Statement of Community Involvement
SEERA	South East England Regional Assembly
SERTAB	South East Regional Technical advisory Body
SSSI	Site of Special Scientific Interest
WDPD	Waste Development Plan Document
WPA	Waste Planning Authority

Glossary**Anaerobic digestion**

A process where biodegradable material is broken down by micro-organisms in the absence of oxygen. Usually carried out in a sealed vessel, producing a *biogas* (mostly methane) which can be used to provide energy, and a stabilised material known as *digestate*.

ATT – advanced or alternative thermal treatments

Such as pyrolysis, gasification and high-temperature incineration which claim to provide lower emissions than traditional incinerators

Area of Attractive Landscape

Area designated by the district council's as being of local landscape importance.

Best and most versatile agricultural land

Agricultural Land Grades 1, 2 and 3a

Best Practicable Environmental Option

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 BPEO establishes for a given set of objectives that option which provides the most benefits or least damage to the environment as a whole, at acceptable cost, over the longer as well as the short term. (Royal Commission on Environmental Pollution, 1988)

Best Value

A duty placed on local authorities to deliver services by the most effective, economic and efficient means available.

Biodrying	See MBT
Bund	An embankment, or mound, formed of natural material, usually soil, used to screen a site from view.
Civic Amenity site.	Formerly known in Milton Keynes as Household Waste and Recycling Centres, and now re-launched as "Community Recycling Centres". Statutory sites which must be provided the Council for the collection of bulky and garden wastes from residents
Combined Heat and Power	See incineration
Community Recycling Centres	See CA sites
Composting	The breakdown of the biodegradable components of waste by micro-organisms in the presence of air/oxygen
Conservation Area	Areas designated as being of special architectural or historic interest, the character or appearance of which it is desirable to preserve or enhance, and designated as such under the Planning (Listed Building and Conservation Areas) Act 1990.
Development Plan	Statutory document which sets out the local planning authorities' policies and proposals for the use of land in its area.

Energy from Waste

See Waste-to-energy

Environment Agency

Public body responsible for protecting and improving the environment in England and Wales.

Gasification

The conversion of waste into a gas by partial oxidation under the application of heat. Partial oxidation is achieved by restricting the flow of air. The gas is typically formed above 750C. It is cleaned to remove tars and particulate matter and then used in a gas engine, turbine or boiler to generate power and/or heat.

Hazardous waste

(known as “Special Waste” in UK legislation) – waste listed in the European Waste Catalogue as hazardous e.g. pesticides, cfc-containing materials etc. Some hazardous wastes are banned from landfill.

High temperature incineration.

Incineration of waste at higher-than-normal temperatures e.g. 1800C. High temperature incineration has until recently only been used for hazardous wastes. Some companies are now proposing to treat municipal wastes at high temperatures.

Household Waste

The legal definition of household waste includes all waste from domestic premises; churches and places of religious worship; premises occupied by charities; waste from any land belonging to or used in connection with a domestic property, caravan, or residential home; waste from a private garage of less than 25m² floor area or used for the accommodation of a private motor vehicle; waste from private storage premises for domestic use; from house-boats; campsites; prisons and penal institutions; halls and premises used for public meetings; street cleaning arisings, and litter.

Household Waste and Recycling Centres	See CA sites
Incineration	Combustion of waste in the presence of air/oxygen. When heat and electricity are recovered from this process it is known as <i>combined heat and power (CHP)</i>
Inert Waste	Generally excavation and demolition materials arising from building and construction. Does not normally undergo any significant physical, chemical or biological changes when deposited at a landfill.
Landfill	The deposit of waste into a void normally resulting from mineral working and, through restoration, to provide land which may be used for another purpose.
Landfill Gas	The gas generated in any landfill site accepting biodegradable organic matter. It consists of a mixture of gases, predominately methane and carbon dioxide. It has an offensive odour due to traces of organosulphur compounds, and can be explosive
Listed Buildings	Buildings of special architectural or historic interest, classified grades I, II*, II to show their relative importance. The statutory list of such buildings is compiled by the Secretary of State (DCMS), on the advice of English Heritage. A listed building cannot be demolished, altered or extended without the consent of the council.
Local Nature Reserve	An area of land that is of special nature conservation interest locally.

**Mechanical
Biological
Treatment**

A combination of mechanical and biological treatments designed to produce any combination of the following: waste reduction, a refuse derived fuel, a compost like material, energy recovery, recyclables recover, or stabilising to reduce biodegradability before landfill. This term covers a wide range of waste treatments.

**Proximity
Principle**

The principle that waste should be disposed of as close to its point of origin as possible

Pyrolysis.

The thermal degradation of waste in the complete absence of air or oxygen. Typically this is in the range 400C-800C. Gas, liquid and a char are produced. The amount relative amounts of gas, liquid oils and char depend upon the temperature used and length of the process Some processes maximise the gas , others the oils. If oils are the principal product these are stored and used as a fuel. If gas is the principal product it can be fed into a gas turbine or boiler.

Recycling

The recovery of reusable materials from waste.

**Regionally
Important
Geological Site**

Geological sites that are considered worthy of protection for their scientific, educational, historical or aesthetic importance. Such sites are not statutory.

**Registered
Historic Parks
and Gardens**

Parks and Gardens of special historic interest that are identified by English Heritage on the Register of Parks and Gardens. They are classified grades I, II* and II to show their relative importance.

Residual Waste

The amount of waste left after recycling and composting recovery activities. Often referred to as 'residuals'.

Schedule Ancient Monuments	Designated by the Secretary of State. It is an offence to carry out work affecting a SAM without Schedule Ancient Monument consent granted by the Secretary of State.
Sites of Special Scientific Interest	An area of land or water notified by a statutory conservation agency under the Wildlife and Countryside Act 1981 as being of national nature or geological conservation importance.
Sustainable development	Development which meets the needs of the present without compromising the ability of future generations to meet their own needs.
Waste Management Facilities	A site or plant intended for the processing or disposal of waste.
Waste-to-Energy	The conversion of waste into a useable form of energy-typically heat and/or electricity. Could involve incineration, pyrolysis, gasification, high temperature incineration, anaerobic digestion, or the burning of landfill gas. Also known as energy-from-waste (EfW)
Wildlife Corridor	Linear pathways containing habitats that encourage the movement of plants and animals between important wildlife sites.
Wildlife Site	Sites designated on their account of their special features or habitat, plant or animal communities, species or geology. Although not statutorily designated, they do receive protection through policies in development plans.