



Bradford Local Development
Framework, Waste
Development Plan Document



Sustainability Appraisal
Scoping Report Revision

Prepared for:
Bradford Metropolitan District Council

Prepared by:
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Exeter, UK

Date:
December 2008

Project Number:
64C11620

| | |
|--|---|
| Proposal No: | 64C11620 |
| Issue: | 2 |
| Author (signature): | E Jones  |
| Project Manager/Director (signature): | J Curran  |
| Date: | 1 st December 2008 |

VERSION CONTROL RECORD

| Issue | Description of Status | Date | Reviewer Initials | Authors Initials |
|-------|-----------------------|----------|-------------------|------------------|
| A | First Draft | 24/07/08 | JC | EJ |
| B | Second Draft | 05/08/08 | JC | EJ |
| 1 | Draft to Client | 16/10/08 | JC | EJ |
| 2 | FINAL DRAFT | 01/12/08 | JC | EJ |

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INVESTOR IN PEOPLE



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NON TECHNICAL SUMMARY

Bradford Metropolitan District Council has begun the preparation of the Bradford District Local Development Framework (LDF). This will gradually take over the role of the Replacement Unitary Development Plan (adopted in October 2005) to provide the land-use planning framework for the District. The Waste Development Plan Document (DPD) is one element in a portfolio of local planning documents, which will make up the LDF for Bradford.

An integral part of preparing the Waste DPD is the Sustainability Appraisal (SA) process. The aim of the SA process is to assess the overall environmental, economic and social impact of the DPDs objectives and policies and to ensure that all elements of the LDF, including the Waste DPD, contribute towards achieving sustainable development.

This document is the Sustainability Appraisal Scoping Report for the Waste DPD. Scoping forms the initial stage of the appraisal process and consists of collection of baseline data and collection of information on other plans, policies and programmes that can have an influence on the production of the DPD. This data is used to develop a sustainability appraisal framework. This framework consists of sustainability objectives and targets which are used as a yardstick to measure the achievement of the plan against. The framework forms the core of the sustainability appraisal of issues, options and potential waste sites that follows at a later stage in the preparation of the DPD.

This report is the second version of the Scoping Report to be published. It is an update of the Scoping Report that was published in July 2007. In this second version of the report, key elements of the baseline data and policy review have been updated in light of the fact that new information has become available. The SA framework has also been updated in the light of this new information.

The Core Strategy of the LDF sets out the spatial vision, objectives, policies and monitoring and implementation framework for the district to which all other DPDs must comply with. The Core Strategy is also being subject to the same sustainability appraisal processes as the Waste DPD and a Core Strategy SA Scoping Report has already been published¹. The Core Strategy SA Scoping Report gathers together a large amount of generic data about the district which will be used to guide all SA processes within the district. Therefore, this Waste DPD Sustainability Appraisal Scoping Report should be seen as supplementary to the Core Strategy SA Scoping Report.

As part of the preparation of the scoping report a number of plans, policies and programmes have been reviewed to identify factors that might influence preparation of the Waste DPD. This review has covered plans and strategies of particular relevance to Bradford and West Yorkshire as well as the international, national and regional policies, strategies and plans which could affect the Waste DPD. This review draws out key issues in relation to the waste management and planning documents and the other sustainability documents reviewed.

¹ City of Bradford Metropolitan District Council (February 2007): Local Development Framework Sustainability Appraisal Draft Scoping Report.

The collection of baseline data and background information for the Waste DPD has been undertaken to provide the basis for predicting and monitoring effects and to help to identify sustainability issues and problems. The collection of the baseline information has covered:

- Broad social, environmental and economic information for the area covered by the plan;
- Detail of the current levels of waste produced in Bradford, how this is managed, how this has changed and how it compares to other local authority areas and the regional and national averages;
- Detail on each common waste management technology to provide an evidence base on the sustainability effects of different technologies.

The identification of sustainability issues is an opportunity to define key issues for the Waste DPD and to assist in the development of sustainable plan objectives and options. The issues have been formulated by the SA team through a review of the likely effects of waste management and from a consideration of the baseline and policy review as described above. The issues are summarised in the table below:

Table NTS1: Key Waste Planning Issues

| Topic | Issues to address |
|----------------------------|--|
| Energy & resources | The Waste DPD needs to move waste management up the waste hierarchy. The recovery of energy from waste is an important method of regaining value. Waste minimisation should also be encouraged where possible in order to reduce pressure on natural resources. |
| Response to Climate Change | The Waste DPD should have regard to climate change when developing policy options and aim to reduce the effects of climate change by finding more sustainable forms of waste management. The SA of the plan should contain objectives for both reducing emissions (from the waste management process itself and also transport) and coping with the effects of climate change. |
| Air, soil & water quality | The Waste DPD should have regard for PPS23 (Planning and Pollution Control) when developing policies. The proximity principle should be considered when allocating sites for waste disposal facilities, in order that transportation of waste is minimal. This may help to reduce the impacts on air quality, noise and dust from vehicles. The Waste DPD should ensure that potential contamination of groundwater or surface water are minimised. PPS25 should be taken into account, so as to ensure that waste disposal facilities do not increase the risk of flooding or that facilities are at risk of flooding. |
| Natural assets | The Waste DPD should aim to enhance biodiversity and actively seek to integrate nature conservation objectives with waste planning. Particular regard is needed to the effects on designated habitats (especially those designated under the Habitats Regulations) and linear habitat structures. If development |

| Topic | Issues to address |
|-------------------------------|--|
| | impacts upon protected species or designated sites, compensation measures and mitigation is required. Mitigation should be pro-active through site selection, timing, and consideration of alternatives. |
| Housing | The District's population is expected to rise by 4000 people per annum up to 2018. Waste disposal and management facilities should accommodate this increase in population. Waste management infrastructure is needed in order that increases in population are considered sustainable. The proximity principle is an important one in making new waste management infrastructure sustainable. |
| Accessibility & local needs | Accessibility to recycling centres (in combination with adequate collection of recyclables) is key in encouraging local people to participate in more sustainable waste management. The plan should consider the adequacy of the current infrastructure. |
| Transport | The proximity principle should be considered when allocating sites for waste disposal facilities, in order that transportation of waste is minimal. This may help to reduce the impacts on air quality, noise and dust from vehicles. |
| Land use | Site selection needs to take into account a number of factors in order to balance the need for and the effects of waste management facilities in order to make the best use of land. Previously developed land should be utilised wherever possible. |
| Communities | The Waste DPD should take account of the needs to conserve open spaces and other green infrastructure for recreation. Sites should be located where potential impacts, that may harm human health, amenity or safety, will not affect nearby communities. |
| Culture, leisure & recreation | <p>The Waste DPD should take into account PPG 17 and PPG 21 in preserving the quality of open space. Proposed new facilities must take account of the CRoW Act and should not, where possible, hinder accessibility to open country and common land.</p> <p>The Waste DPD should be committed to PPG 15 (Planning and the Historic Environment) and PPG 16 (Archaeology and Planning) objectives for the effective protection of the historic environment and archaeological remains through site selection.</p> |
| Safety & security | Sites should be located where potential impacts, that may harm human health or safety, will not affect nearby communities. |
| Health (& social welfare) | Waste management needs to be moved up the waste hierarchy in order to reduce potential human health effects. There needs to be a careful balance struck between the proximity principle and locating development where it does not negatively affect the amenity of communities. |
| Education & training | Where possible, the Waste DPD should encourage waste education programmes. |
| Local economy & employment | The Waste DPD should help provide and contribute towards making Bradford an economically prosperous place, without detracting from its environment. The number of people employed in waste management in the UK has been growing. Jobs in sustainable waste management technologies will help to boost the |

| Topic | Issues to address |
|-------|-------------------|
| | economy. |

The intention is to have a consistent SA sustainability framework for each assessment carried out as part of the local development framework. As part of the scoping process for the Waste DPD it has become clear that it would be useful to refine some of the objectives which have been used within the SA framework for the Core Strategy in order to make them more applicable to waste management development. The following table shows the SA framework which is intended to be used to assess the sustainability implications of the Waste DPD. Care has been taken to address the relevant policy target and objectives, to reflect the existing baseline and to address the issues which have been identified. Indicators that can be used to monitor the effects of the plan will be drawn up as part of the SA Report once the significant effects of the plan are identified. Some new SA objectives have been added since the publication of the Draft Waste DPD SA scoping report and these are marked in *red italic*.

Table NTS2: Sustainability Appraisal Framework

| Topic | Core Strategy Sustainability Appraisal Objectives | Draft Waste DPD Sustainability Appraisal Objectives | Appraisal Questions. Will the plan... |
|----------------------------|---|---|--|
| Energy and Resources | <p>Ensure the prudent and efficient use of energy and natural resources and the promotion of renewable energy.</p> <p>Minimise the growth in waste and increase the amount of waste which is re-used, recycled and recovered.</p> | <p>Ensure the prudent and efficient use of energy and natural resources and the promotion of renewable energy.</p> <p>Minimise the growth in waste and increase the amount of waste which is re-used, recycled and recovered.</p> | <p>Lead to a reduction of the amount of waste that will require treatment?</p> <p><i>Minimise any adverse impacts on water resources at all stages of waste management?</i></p> <p>Put in place adequate and sustainable treatment facilities?</p> <p>Help the District to meet its recovery and recycling targets?</p> <p>Help the authority meet its quota under the LATS?</p> |
| Response to Climate Change | <p>Reduce the districts impact on climate change and vulnerability to its effects</p> | <p>Reduce the District's impact on climate change and vulnerability to its effects.</p> | <p>Reduce the potential for greenhouse gas emissions caused by waste management and <i>reduce vulnerability of waste management facilities to the effects of climate change (including increased flooding)?</i></p> <p>Encourage the development of renewables and energy</p> |

| Topic | Core Strategy Sustainability Appraisal Objectives | Draft Waste DPD Sustainability Appraisal Objectives | Appraisal Questions. Will the plan... |
|---------------------------|---|---|--|
| | | | efficiency within the waste sector? |
| Air, Soil & Water Quality | Safeguard and improve air, water and soil resources. | Safeguard and improve air, water and soil resources and reduce the number of people affected by noise and dust from waste management sites. | Change the amount of pollution and nuisance caused by waste management? <i>Guide waste management towards areas that help to improve the land resource (for example, towards previously used land and away from valuable agricultural land)?</i> |
| Natural Assets | To conserve and enhance the internationally, nationally and locally valued wildlife species and habitats. Maintain and enhance the character of natural and man made landscapes. | To conserve, <i>restore, expand</i> and enhance the <i>internationally</i> , nationally and locally valued wildlife species and habitats. To maintain, <i>restore</i> and enhance the character, <i>value and diversity</i> of natural and man-made landscapes. Ensure restoration to biodiversity end use for waste (landfill) sites and contribute to realising local and national BAP targets. | Include actions that directly or indirectly affect Natura 2000 sites, SSSIs or other designated sites? Include actions that will cause habitat loss or fragmentation <i>or restoration, expansion or enhancement of wildlife networks or habitats?</i> Include actions that help to reach targets or compromise targets of BAPs? Include actions to ensure restoration to biodiversity is a priority where appropriate? Protect, <i>restore</i> and enhance the landscape? |
| Housing | Provide the opportunity for everyone to live in quality housing which reflects individual needs, preferences and resources. | Increase proximity of waste management infrastructure to current and future centres of population in order to reduce mileage traveled | Include actions that change mileage travelled per tonne of waste? |
| Transport | Develop and maintain an integrated and efficient transport network which maximises access whilst minimizing detrimental | Reduce nuisance caused to communities by waste transport. Encourage a modal shift | Cause a change in traffic flows or the nature of traffic (an increase in HGVs for example) that affects communities or |

| Topic | Core Strategy Sustainability Appraisal Objectives | Draft Waste DPD Sustainability Appraisal Objectives | Appraisal Questions. Will the plan... |
|---|---|---|--|
| | impacts. Reduce congestion and pollution by increasing transport choice and by reducing the need to travel by lorry / car. | away from road freight | areas valued for their environmental importance? Include actions that would encourage a shift from road freight to rail freight? |
| Land use | Improve the quality of the built environment and make efficient use of existing land and buildings. | Improve the quality of the built environment, protect and enhance historic assets and make efficient use of land. | Reduce the impact of waste management on the quality of the built environment? <i>Maximise use of previously developed land where possible.</i> |
| Historic Environment | Protect and enhance historic assets. | <i>Avoid, protect and enhance historic assets.</i> | Preserve and where relevant enhance sites of built and archaeological heritage? Aim to steer development away from archaeologically sensitive sites? Preserve, manage or enhance the historic environment character and opportunity areas? |
| Accessibility & Local Needs | Improve the quality and range of services available within communities and connections to wider networks. | Improve the quality and range of services available within communities and connections to wider networks. | Improve the accessibility of waste management and treatment services to centres of population? |
| Communities | Promote social cohesion, encourage participation and improve the quality of deprived neighbourhoods. | Ensure local communities take more responsibility for their own waste | Reduce the amount of waste that is treated outside of the District? |
| Culture, Leisure and Recreation | Create good cultural, leisure and recreation activities available to all. | <i>Avoid impacts on open space, cultural, leisure and recreation opportunities</i> | <i>Ensure that open space, cultural, leisure and recreation opportunities are not affected by waste management?</i> |
| Safety and Security / Health and Social | Improve safety and security for people and property. Provide the conditions and | Reduce the impact of the waste industry on people's safety and security , health and quality of life | Cause a change in the number of people directly affected by waste management (living in close proximity to a site or |

| Topic | Core Strategy Sustainability Appraisal Objectives | Draft Waste DPD Sustainability Appraisal Objectives | Appraisal Questions. Will the plan... |
|---|--|---|--|
| Welfare | services to improve health and well being and reduce inequality to access to health and social care. | | an access route) whose impact cannot be mitigated? Cause a cumulative impact on certain communities? |
| Education and Training/ Local Economy and Employment | Promote education and training opportunities which build the skills and capacity of the population. Increase the number of high quality job opportunities suited to the needs of the local workforce. Support investment and enterprise that respects the needs of a local area. | Support employment in the waste industry for local people. Ensure the provision of adequate waste management capacity. | Include actions that change the number of local people directly employed in <i>skilled jobs in</i> the waste industry? Include actions that ensure the plan contributes to sustainable levels of economic growth by maintaining an adequate provision of waste management capability? |

The SA guidance produced by the ODPM recommends that LPAs consult on the basis of a scoping report presenting the information collected at this stage. A draft of this scoping report has already been consulted on in July 2007. However, because we are changing the Sustainability Appraisal Framework (effectively changing the scope of the assessment) we are giving consultees another chance to review the scoping report and the framework before we begin the assessment of the issues and options. The scoping report, will be available on the Council's website during the consultation period www.bradford.gov.uk/planning. The next stage of the SA will be to assist with developing and refining issues, options and sites and assessing the effects of the plan and there will be other opportunities to comment on this work as it progresses.

We would like your views on any aspect of this Updated Scoping Report. Please e-mail your comments to: ldf.consultation@bradford.gov.uk

or in writing to:

Bradford Local Development Framework
PO Box 1068
BRADFORD
BD1 5WZ

Please head the response Waste DPD Sustainability Appraisal – Updated Scoping

Report. Comments to be received no later than 30th January 2009.

1 Introduction

1.1 Purpose and structure of this document

Bradford Metropolitan District Council has begun the preparation of the Bradford District Local Development Framework (LDF). This will gradually take over the role of the Replacement Unitary Development Plan (adopted in October 2005) to provide the land-use planning framework for the District.

The requirement to prepare a new-style LDF was introduced by the Government in 2004. The Waste Development Plan Document (DPD) is one element in a portfolio of local planning documents, which will make up the LDF for Bradford.

The Council adopted their replacement Unitary Development Plan (rUDP) in October 2005. The Council's adopted UDP does not have a comprehensive coverage of waste management issues and was produced prior to publication of Planning Policy Statement 10: Waste Management (PPS10) (in July 2005). Because of this, the waste policy does not reflect the latest government planning policy. The Waste DPD will replace the waste elements of the rUDP and include additional information to reflect the introduction of PPS10.

An integral part of preparing the Waste DPD is the Sustainability Appraisal (SA) process. The aim of the SA process is to assess the overall environmental, economic and social impact of the DPDs objectives and policies and to ensure that all elements of the LDF, including the Waste DPD, contribute towards achieving sustainable development.

This document is the Sustainability Appraisal Scoping Report for the Waste DPD. Scoping forms the initial stage of the appraisal process and consists of collection of baseline data and collection of information on other plans, policies and programmes that can have an influence on the production of the DPD. The data collected presents an overall picture of the district and compares Bradford's performance and features to those of neighbouring areas and regional and national averages. The SA team then use this data to set out a sustainability appraisal framework. This framework consists of sustainability objectives and targets which are used as a yardstick to measure the achievement of the plan against. The framework forms the core of the sustainability appraisal of issues, options and potential waste sites that follows at a later stage in the preparation of the DPD. This scoping report was prepared by ENVIRON who are working in consortium with GVA Grimley. GVA Grimley is preparing the Waste DPD on behalf of Bradford MBC.

This report is the second version of the Scoping Report to be published. It is an update of the Scoping Report that was published in July 2007. In this second version of the report, key elements of the baseline data and policy review have been updated in light of the fact that new information has become available. The SA framework has also been updated in the light of this new information.

The Core Strategy of the LDF sets out the spatial vision, objectives, policies and monitoring and implementation framework for the district to which all other DPDs must comply with. The Core Strategy is also being subject to the same sustainability appraisal processes as the

Waste DPD and a Core Strategy SA Scoping Report has already been published². The Core Strategy SA Scoping Report gathers together a large amount of generic data about the district which will be used to guide all SA processes within the district. Therefore, this Waste DPD Sustainability Appraisal Scoping Report should be seen as supplementary to the Core Strategy SA Scoping Report.

The SA guidance produced by the ODPM recommends that LPAs consult on the basis of a scoping report presenting the information collected at this stage. A draft of this scoping report has already been consulted on in July 2007. However, because we are changing the Sustainability Appraisal Framework (effectively changing the scope of the assessment) we are giving consultees another chance to review the scoping report and the framework before we begin the assessment of the issues and options. The scoping report, will be available on the Council's website during the consultation period www.bradford.gov.uk/planning. The next stage of the SA will be to assist with developing and refining issues, options and sites and assessing the effects of the plan and there will be other opportunities to comment on this work as it progresses.

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or in writing to:

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BD1 5WZ

Please head the response Waste DPD Sustainability Appraisal – Updated Scoping Report. Comments to be received no later than 30th January 2009.

The structure of this report reflects the appraisal process and is set out as follows:

Section 1 – comprises the introduction and defines core concepts and the key elements that come together to form the Sustainability Appraisal process.

Section 2 – summarises the main inputs from other plans, policies and programmes at a national, regional and local level.

Section 3 – sets out the guiding principles relating to the collection of baseline data and provides a snapshot of Bradford's waste situation.

Section 4 – introduces the draft sustainability appraisal objectives.

² City of Bradford Metropolitan District Council (February 2007): Local Development Framework Sustainability Appraisal Draft Scoping Report.

Section 5 – describes the next stages of consultation and using the framework to appraise development of the Core Strategy.

1.2 What is Sustainability Appraisal?

Sustainability Appraisal (SA) can be defined as the process of evaluating the environmental, social and economic effects of a policy, plan or programme, presenting the results in a written report and using the findings in publicly accountable decision-making.

The aim of sustainability appraisal is to assist the planning process to meet the objectives of sustainable development, whilst protecting the environment and ensuring development respects environmental limits. If sustainability appraisal is used throughout the development planning system it can help planners to ensure that the most sustainable options are chosen. It does this by providing planners with a transparent, evidence based assessment of the likely impacts of different courses of action.

The first phase of SA comprises a series of linked tasks and is termed the scoping stage. It involves establishing the baseline and setting the context, identifying the issues and from this formulating a SA framework against which the social, environmental and economic effects of a plan can be tested.

The two major influences on this scoping process have been the Core Strategy SA Scoping Report, Bradford LDF Core Strategy Issues and Options Paper No 8 on Waste and applicable Government Guidance. The main piece of guidance used was Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents. This is guidance for Regional Planning Bodies and Local Planning Authorities (LPAs) produced by the ODPM in November 2005³. This guidance provides practical help on how LPAs can integrate the process of preparing an SA with that of plan-making; breaking down the preparation into stages and identifying the main tasks that need to be carried out. PPS10 Planning and Waste Management, was also used to guide the appraisal process as was the Companion Guide to PPS10.

The concept of sustainable development is critical to understanding the process of appraisal. Sustainable development is a term that has been commonly used since the Earth Summit at Rio de Janeiro in 1992. Its aim is to balance economic progress with social and environmental needs. A widely used definition was drawn up by the World Commission on Environment and Development in 1987:

‘Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.’

³ Please note that the ODPM has now become the Department of Communities and Local Government. However, for ease of reference this Guidance is referred to as the ODPM Guidance

Achieving sustainable development means addressing the following five objectives⁴:

- Living within environmental limits;
- Ensuring a strong, healthy and just society;
- Achieving a sustainable economy;
- Promoting good governance; and
- Using sound science responsibly.

1.3 Bradford's Local Development Framework

The Planning and Compulsory Purchase Act reformed the English planning system in September 2004. The framework for the new planning system is outlined by The Planning and Compulsory Purchase Act of 2004, and associated regulations and guidance. One of the requirements for the new planning system is that Local Plans, Structure Plans, Unitary Development Plans (UDPs) and Supplementary Planning Guidance (SPGs) will be replaced by a range of documents that will form Local Development Frameworks. Local Development Frameworks are made up of a portfolio of documents called Local Development Documents (which in turn are divided into Development Plan Documents (DPDs) and Supplementary Planning Documents (SPDs)) which, in addition to the Regional Spatial Strategy form the statutory development plan for the area.

The LDF in the Bradford District must be in general conformity with the Regional Spatial Strategy and must also seek to implement the spatial aspects of the Community Strategy prepared by Bradford Vision.

The 2004 Act requires that Regional Spatial Strategies and DPDs be subject to sustainability appraisal. This is to ensure that the impacts of the plan on the environment, society and the economy are properly assessed and to allow queries to be raised about these issues.

The timetable for producing the documents is set out in the updated Local Development Scheme (December 2007), which sets out the details for producing, monitoring and reviewing Local DPDs. As the Replacement UDP was adopted in Autumn 2005, the policies and proposals outlined in the UDP have been 'saved' until 2008 while the new DPDs are produced and added to the LDF. Subject to government approval these will be saved until the LDF is adopted.

The Bradford Waste DPD is part of a suite of Development Plan Documents which are being produced following the development of the Core Strategy. The Local Development Scheme has been revised and submitted to Government at end of March 2007.

The revised LDS sets out the following documents, which form the LDF, are shown in Table 1.

⁴ Taken from the UK Government's Sustainable Development Strategy - *UK Sustainable Development strategy – Securing the Future* (Defra, 2005)

Table 1: Documents forming the LDF

| Document | Status | Description | Conformity | Adoption Date |
|--|--------|--|---|--|
| Replacement UDP: Policies and Proposals saved for at least 3 years from the date of adoption (i.e. up to November 2008) | | | | |
| Statement of Community Involvement (SCI) | LDD | How the community will be consulted on all DPDs and planning applications | The Regulations and Council's Corporate Communications Strategy | March 2008 |
| Core Strategy | DPD | The Spatial Vision and Objectives for meeting known and anticipated development requirements. | RSS, & National Planning Policy Statements. | October 2010 |
| Proposals Map | DPD | Reflect policies and proposals in DPDs | Core Strategy and other DPDs | Dependent on the timetable of Core Strategy and other DPDs |
| Allocations | DPD | Will identify housing and employment sites in order to meet the Vision and Objectives of the Core Strategy. Will also identify open space, sport and recreation sites. | RSS, Core Strategy, National Planning Policy Statements. | March 2012 |
| Bradford City Centre Area Action Plan | DPD | Provide the statutory basis for the implementation of the City Centre Masterplan and associated four neighbourhood plans. | Saved rUDP policy, RSS & National Planning Policy Statements. | February 2011 |
| Shipley & Canal Road Area Action Plan | DPD | Provide the spatial expression to deliver the regeneration and redevelopment of the Corridor supporting the reintroduction of the Canal in to the city Centre. | RSS, Core Strategy, National Planning Policy Statements. | January 2012 |
| Bradford Waste Management Plan | DPD | Will set out the Council's Spatial Strategy for dealing with waste and identify waste management sites. | RSS, National Planning Policy Statements & Core Strategy | July 2011 |
| Open Space & Built Facilities | SPD | Supports saved policy OS5 and CF7A on provision of new open space and built recreation facilities. | Adopted UDP | September 2008 |
| Landscape Character | SPD | Provides guidance on key character areas in support | Adopted UDP | April 2008 |

| Document | Status | Description | Conformity | Adoption Date |
|--------------------------------|--------|---|-------------|---------------------|
| Assessment | | of saved policy NE4. | | |
| City Centre Affordable Housing | SPD | Supports the saved policies on Affordable Housing and guidance on how the policies will be implemented in Bradford City Centre. | Adopted UDP | December 2007 |
| Tree Protection | SPD | Supports the saved policies on the protection of trees on development sites. | Adopted UDP | June 2008 |
| Affordable Housing | SPD | Supports the saved policies on Affordable Housing and guidance on how the policies will be implemented. | Adopted UDP | September 2008 |
| Planning Obligations | SPD | Supports the saved policy UR6 on the use of Planning Obligations. | Adopted UDP | September 2007 |
| Shop Front | SPD | Supports the saved policies D13 of the RUDP on Shop Fronts | Adopted UDP | October 2007 |
| Menston Sites | SPD | Site specific SPD setting out framework for development of two large housing sites allocated in RUDP. | Adopted UDP | September 2007 |
| Sustainable Design | SPD | Sustainable design guide in support of saved policies. | Adopted UDP | March 2007 (actual) |
| City Centre Design Guide | SPD | Supports policies in RUDP and provides detailed advice on design considerations. | Adopted UDP | March 2007 (actual) |

Figure 1 shows the relationship between the Waste DPD and the other DPDs.

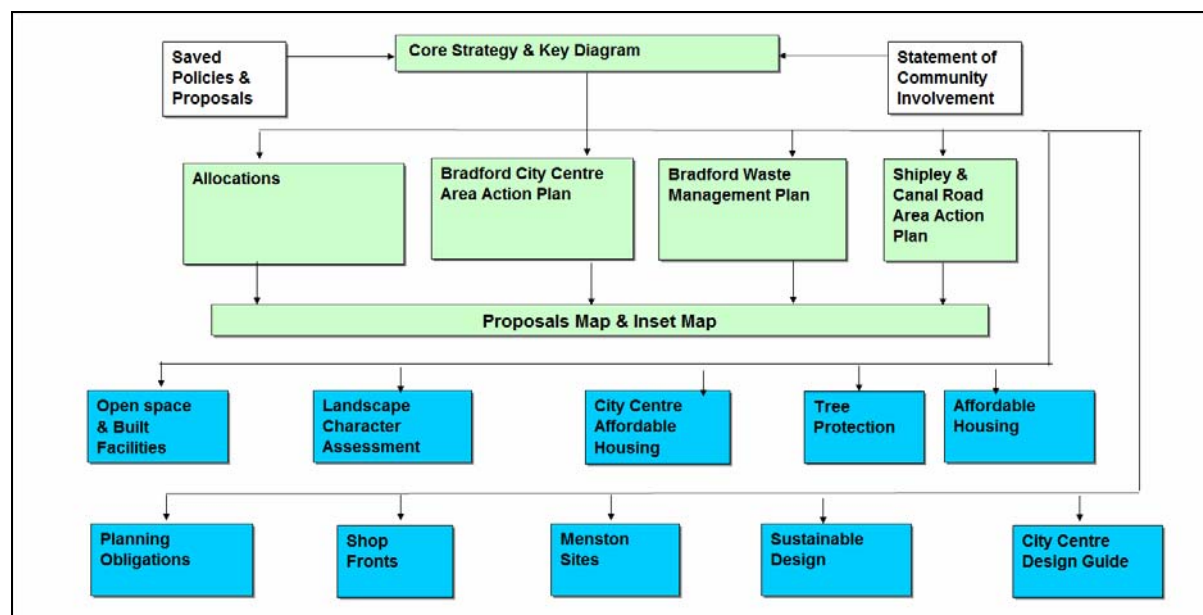


Figure 1: Relationship between the Waste DPD and other DPDs and SPDs

KEY

- Development Plan Documents
- Supplementary Planning Documents

1.4 Stages of Sustainability Appraisal

The SA Guidance produced by the ODPM identifies five tasks to be carried out as part of the sustainability appraisal scoping stage (Stage A). The tasks are set out below and linked to the appropriate sections in this scoping document. The results of carrying out these tasks form the contents of this report. It should be noted that this report only encompasses Stage A of the SA process.

- Task A1 Identifying other relevant policies, plans, programmes and sustainability objectives (Section 2 and Appendix 2)
- Task A2 Collecting baseline information (Section 3)
- Task A3 Identifying sustainability issues and problems (Section 4)
- Task A4 Developing the sustainability appraisal framework (Section 4)
- Task A5 Consulting on the scope of the sustainability appraisal (Section 5)

Tasks A1 to A5 are not carried out in a linear progression. Rather each task is carried out simultaneously with each informing all the others. The tasks also inform the preparation of the DPD itself. The scoping stage of the SA process is undertaken during the pre-production stage of a DPD, and information collected for the SA informs the early stages of the DPD preparation. This is set out in Figure 2 for the pre-production and production stages of plan making.

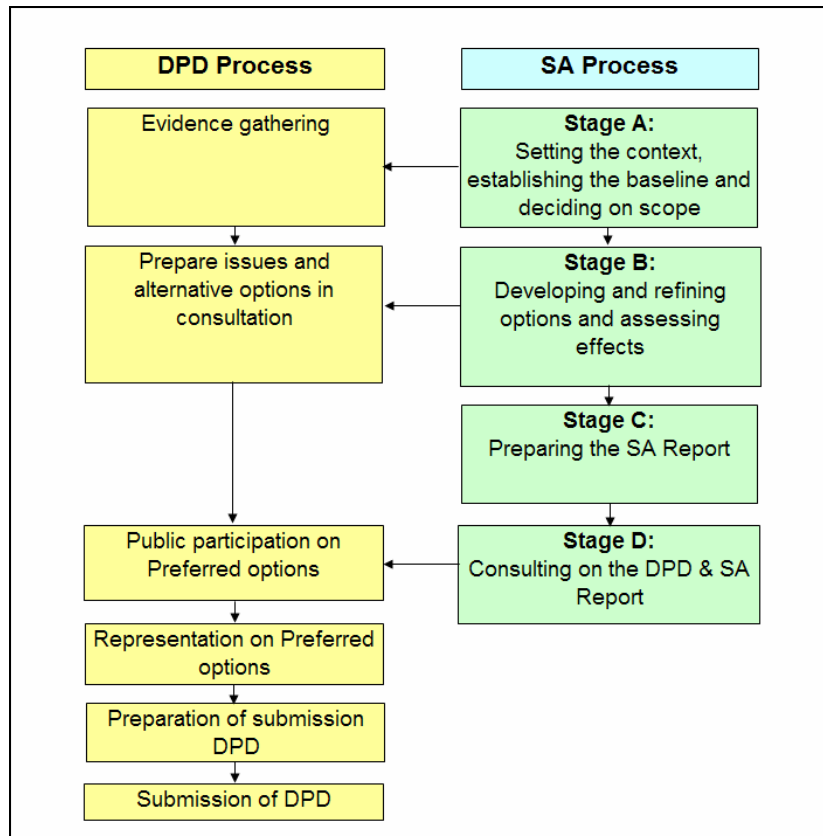


Figure 2: Links between DPD and SA preparation processes (pre-production and production stages)

It is clear from the figure above that SA is an iterative, ongoing process, which seeks to improve the sustainability performance of the plan or programme at every stage. Starting the SA at an early stage of plan preparation means that the SA can contribute to the ongoing refinement of the strategy, proposals and policies.

1.5 Influence of Strategic Environmental Assessment

Strategic Environmental Assessment (SEA) is a tool for integrating environmental considerations into decision-making and ensuring that these are taken into account. SEA is generally used to refer to a particular type of assessment that fulfils the legal requirements, introduced by European Directive 2001/42/EC⁵. As its name suggests it is more focused on the environmental impacts of the plan (although it does take account of economic and social impacts). SEA has a strategic focus and aims to anticipate the likely significant environmental effects (including cumulative environmental effects) of implementing a plan and its reasonable alternatives with a view to avoiding, reducing or offsetting any negative impacts.

The SA Guidance produced by the ODPM incorporates the broad requirements of the SEA Directive into the wider SA process. This shift in emphasis towards SA as a comprehensive method of capturing and assessing not only environmental, but also economic and social implications of plans, has raised the issue of ensuring that the more specific objectives of SEA are properly achieved and not completely subsumed into a broader SA.

It is the responsibility of the LPA to make sure that the SA Reports have been carried out in accordance with the SEA Directive, the Planning and Compulsory Purchase Act⁶ and SEA Regulations. Appendix 1 sets out a summary of the SEA Directive Requirements. This report aims to identify the potential sustainability issues affecting the Bradford Waste DPD and incorporate these into the SA framework.

1.6 Bradford's Approach to Sustainability Appraisal

Bradford Council has a steering group of officers which aims to bring together a multi-disciplinary team covering the key strands of sustainability, to provide specialist inputs and advice to officers carrying out SA, to debate key stages and to oversee the appraisal process. In debating the key stages involved in setting out an SA framework for the LDF, it has been acknowledged that there needs to be a corporate approach to scoping and carrying out appraisals, supported by access to a common data base of supporting evidence. The production of the scoping report for the Core Strategy represented a first step towards this approach. The work undertaken for this scoping report will add further data and issues to this common data-base.

⁵ Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment.

⁶ Planning and Compulsory Purchase Act 2004 The Town and Country Planning (Local Development) (England) Regulations 2004.

The ODPM SA Guidance advises that the common use of SA information for Development Plan Documents is appropriate. Once SA information and objectives have been developed for a LPA's first SA, subsequent SAs of other Development Plan Documents can also draw on this information. This advice applies particularly to the scoping stage of the process. An SA need not be done in any more detail, or using more resources than is useful for its purpose. In this way the Core Strategy SA Scoping Report although primarily strategic in content and aimed at scoping the Core Strategy, has and will form the basis for scoping this and later DPDs produced by Bradford Council. However as part of the process of producing this scoping report further information specifically related to waste and waste management technologies has been included (please see Section 3 for more details of the additional information gathered as part of this report).

1.7 Planning for the Protection of European Sites: Appropriate Assessment

Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Flora and Fauna – the 'Habitats Directive' – provides legal protection for habitats and species of European importance.

Schedule 1 of the Conservation (Natural Habitats, &c) (Amendment) (England and Wales) Regulations 2006 inserts a new Part IVA into the Conservation (Habitats, &c) Regulations 1994 and transposes into English Law the requirement to carry out Habitat Regulations Assessment for land use plans. Article 85B of the Conservation (Natural Habitats, &c) (Amendment) Regulations 2006 sets out that "the plan-making authority for that plan shall, before the plan is given effect, make an *appropriate assessment* for the implications for the site in view of that site's conservation objectives". Article 85B also sets out inter alia that "in the light of the conclusions of the assessment, and subject to regulation 85C (considerations of overriding public interest) the competent authority shall give effect to the land use plan only after having ascertained that it will not adversely affect the integrity of the European site".

The government has recently introduced guidance on Planning for the Protection of European Sites: Appropriate Assessment (AA). The guidance makes it clear that Habitat Regulations Assessment or Appropriate Assessment (HRA/AA) should be incorporated into the wider SA process and that the purpose of HRA/AA is to ensure that significant effects on European sites are avoided. The assessment is carried out solely in respect of the 'conservation objectives' for which a European site has been designated and its integrity in relation to its ability to support those objectives. HRA/AA has four steps:

- Stage 1: Screening: Determining whether the plan is likely to have a significant effect on a European site;
- Stage 2 (if necessary): Appropriate Assessment: Determining whether, in view of the sites conservation objectives, the plan would have an adverse effect on the integrity of the site(s);
- Stage 3 (if necessary): Assessment of alternative solutions: Where the plan is assessed as having an adverse effect on the integrity of the site there should be an examination of alternatives; and

- Stage 4 (if necessary): Assessment where no alternative solutions remain and where adverse impacts remain: The plan can only be put in place if there are imperative reasons of overriding public interest and there are no alternative solutions. Judgements will involve an assessment of the importance of the proposal and whether it is sufficient to override the nature conservation importance of that site. In this case, compensatory measures must be put in place.

It is important to ensure that HRA/AA addresses effects on all European sites even if they are outside the administrative area of Bradford. In the case of the Waste DPD, the screening stage would need to examine primarily whether the plan, its policies or site proposals would be likely to have any impact on the South Pennine Moors SPA and SAC (see Figure 3). A HRA/AA is being undertaken as part of the Core Strategy SA and the screening for the Waste DPD will be led by the results of this (and will interpret these results in relation to waste). This screening process will need to be undertaken at the stage when the issues and options are being assessed.



Figure 3: Location of internationally designated wildlife sites

Source: <http://www.natureonthemap.org.uk/map.aspx>

2 Setting the Context

2.1 Relationship to Relevant Plans, Policies and Programmes

The purpose of reviewing other plans, policies and programmes is to set out factors that might influence preparation of the Waste DPD and to identify potential inconsistencies and constraints so that these can be addressed by the plan. The SEA Directive specifically requires environmental protection objectives established at international, European Community and national levels to be taken into account.

A number of plans, policies and programmes have been reviewed in the course of preparing the Core Strategy SA Scoping Report and an in depth review of plans and programmes has been undertaken especially at the local level. However, it was felt that due to the key influences on waste planning from the international, national and regional level that a more comprehensive policy review needed to be undertaken which included not just waste plans and policies but other policies (such as PPSs for example), which could affect the Waste DPD. Please see Appendix 2 (of this report) for the results of the policy review undertaken for the Waste DPD. For a full review of the other local plans and programmes that were reviewed, readers should refer to Appendix 3 of the Core Strategy SA Scoping Report.

This section draws out key issues from the review in relation to the waste management and planning documents and the other sustainability documents reviewed.

2.2 Key Issues from the Review of Waste Management/Planning Documents

Internationally, waste management is guided mainly by the Waste Framework Directive (91/156/EEC) and the Landfill Directive (99/31/EC). In the Waste Framework Directive (consolidated in Directive 2006/12/EC), emphasis is placed on the prevention, reduction, re-use and recycling of waste through the establishment of a network of waste management facilities. An important objective of the Waste Framework Directive is to ensure the recovery of waste or its disposal without endangering human health and the environment.

The Landfill Directive aims at reducing the amount of waste sent to landfill, and promotes recycling and recovery of waste. The Landfill Directive also intends to prevent or reduce the adverse effects of the landfill of waste on the environment, in particular surface water, groundwater, soil, air and human health. A key requirement of the Landfill Directive is to reduce the amount of biodegradable municipal waste (BMW) (non-hazardous waste) sent to landfill to 75% of the total generated in 1995 by 2010, 50% by 2013 and 35% by 2020. Each local authority has been allocated landfill allowances which can be traded, banked and borrowed. Bradford Council is likely to keep within its allowances for 2008/09 but may need to trade allowances in 2009/2010.

At a national level, waste planning is guided by the National Waste Strategy (2007), as well as PPS10 – Planning for Sustainable Waste Management and its companion guide. The overall objectives are to protect human health and the environment by producing less waste and by recovering it as a resource wherever possible. The waste strategy has strengthened the consideration of life-cycle thinking and linked waste management to the broader

sustainable consumption and production agenda. Moving waste up the hierarchy (reduce, re-use, recycle) through more sustainable waste management, government policy aims to break the link between economic growth and the environmental impact of waste. The Waste DPD will need to incorporate principles of sustainability in choosing locations for waste disposal facilities. The promotion of the waste hierarchy should be an underlying factor in devising policies. Policies should be formulated in order that international and national targets are achieved in a sustainable manner and the SA should test whether these policy commitments will be met. In the 2007 strategy, the Government set a number of more challenging targets for waste management:

- Reducing greenhouse gas emissions from waste management by at least 9.3 million tonnes carbon dioxide equivalent per year by 2020 compared to 2006/07;
- Reducing the amount of household waste not re-used, recycled or composted from over 22.2 million tonnes in 2000 and 18.6 million tonnes in 2005 to 15.8 million tonnes in 2010 with an aspiration to reduce it to 14.3 million tonnes in 2015 and 12.2 million tonnes in 2020 – a reduction of 45% between 2000 and 2020;
- Higher national targets for re-use, recycling and composting of household waste – at least 40% by 2010, 45% by 2015 and 50% by 2020;
- Setting national targets for the recovery of municipal waste – 53% by 2010, 67% by 2015 and 75% by 2020;
- Reducing the amount of commercial and industrial waste going to landfill by at least 20% by 2010 compared to 2004; and
- Considering in conjunction with the construction industry, a target to halve the amount of construction, demolition and excavation wastes going to landfill by 2012 as a result of waste reduction, re-use and recycling.

Regional waste management policy includes the Yorkshire & Humber Regional Waste Strategy 'Let's take it from the tip' (2003). The overall aim of the Strategy is to develop more sustainable waste systems across the region. It sets out the following four objectives:

- Gain community support and involvement in the delivery of the strategy (e.g., to implement a regionally based waste awareness campaign);
- Reduce waste production and increase re-use, recycling and composting;
- Manage residual waste in a sustainable way (Municipal waste management strategies and new waste disposal contracts should be evaluated using Best Practicable Environmental Option, sustainability appraisal and health impact assessment);
- Provide technical support and advice: Establish networks of contacts from local authorities, waste companies, environmental groups, community organisations and individuals to:
 - disseminate good practice on waste management
 - provide updates and interpretation on new legislation

- facilitate discussions to inform consultation responses to UK and EU Governments

The Strategy introduces a regional target to reduce the annual increase in waste growth to 2% (from 3%) by 2008/9. There are indications that this target will be achieved. Modelling shows that a reduction to 2% is achievable until 2010, 1% is achievable to 2020 and a flat 0% is achievable thereafter.

The Regional Spatial Strategy (adopted in 2008) sets out the waste to be managed for the Region to 2021 (taking into account each local authority's recycling and recovery targets) which for municipal solid waste and commercial and industrial waste are broken down into local authority level. The RSS states that local authorities should support the urgent provision of a combination of facilities and other waste management initiatives which best meets environmental, social and economic needs for their areas based on the following principles:

- Moving the management of all waste streams up the waste hierarchy;
- Achieving all statutory waste management performance targets during the plan period; and
- Managing waste at the nearest appropriate location, where necessary by seeking agreement with neighbouring authorities.

Local waste policy is guided by the Municipal Waste Management Strategy (2005). The Local Waste Strategy is set within the context of the National Waste Strategy which sets targets for local authorities to achieve. The Municipal Waste Management Strategy (2005) considers that it will be very difficult to achieve the landfill reduction and recovery targets with Bradford's present recycling and composting operations. Therefore some form of further treatment and energy recovery will be required both in the short term and longer term.

To fill this treatment gap, Bradford MDC has embarked on a waste treatment procurement exercise. The council has secured £62.1 million in Private Finance Initiative (PFI) credits from the Government to contribute to funding the extra cost of a long term treatment solution to dealing with waste produced in the district. The Council is collaborating with neighbours Calderdale Council on the project. The councils are considering various technical options to deal with waste including energy from waste, mechanical treatment, composting, autoclaving and anaerobic digestion. All the options available to the Council will be assessed in terms of value for money and environmental impact and residents will be fully consulted throughout the process. The next step of the process will be to evaluate the tenders. The winning contractor will be chosen in 2010.

2.3 Key Issues from the Review of Sustainability Documents

There are also a large number of other plans and programmes that the Waste DPD will have an indirect relationship with and these include national and international legislation down to local action plans. These plans cover a variety of subjects but the key issues (divided by subject) are shown below:

2.3.1 Sustainable Development, Spatial Planning and Environmental Strategy

There are a number of environmental and sustainable development strategy processes operating at the European and the national level including the World Summit on Sustainable Development, the European Spatial Development Perspective and the UK Government's Sustainable Development Strategy. These strategies outline environmental protection and sustainability objectives which should be pursued in Europe and the UK. A key common theme of these strategies is the interdependence of natural resources, the environment, society and the economy and in terms of natural resources the need to view waste as a resource and the need to decouple economic growth from resource use.

The UK Sustainable Development strategy builds on this and defines the key principles of sustainable development as:

- Living within environmental limits
- Ensuring a strong, healthy and just society
- Achieving a sustainable economy
- Promoting good governance
- Using sound science responsibly

These are key objectives that the Waste DPD can contribute to and the basis of how the SA will be testing the Waste DPDs contribution towards sustainable development.

2.3.2 The Natural Environment

The natural environment covers a broad range of policies and programmes ranging from biodiversity through to landscape and rights of way issues.

The European Union has a wide ranging policy framework especially relating to biodiversity including directives aiming to protect our most valuable habitat and measures to ensure that biological diversity generally is enhanced.

UK strategies seek to define these objectives further by setting up systems to assist in the protection of certain habitats and species and to set targets for biodiversity. Key objectives that the Waste DPD can contribute to include:

- Avoiding development which would impact on sites of international or national importance;
- Avoiding development on identified sites of county/local importance, BAP habitats and other habitats of notable ecological value;
- Enhancing biodiversity through the restoration and creation of habitat.

2.3.3 Social and Community Issues

The main community issue in connection to waste management is nuisance. Internationally, the World Health Organisation sets guideline values in relation to noise which any waste

management development should adhere to. These limit values are re-iterated in national planning guidance on noise.

Other policies at national level are concerned with such issues as provision of sustainable housing development in rural areas. These policies make it clear that housing developments should be located in suitable locations, which offer a good range of community facilities and with good access to jobs, key services and infrastructure (including waste management infrastructure). Waste management should contribute to sustainable communities.

2.3.4 Climate change, air, land and water

The UK is signatory to several binding targets at the European level on such issues as climate change emissions, air pollution and water pollution. These targets are passed down to the national policy level through statute and planning policy guidance. Key objectives/targets that the Waste DPD can contribute to include:

- Achieve a reduction in CO₂ levels to at least 5% of 1990 levels by 2012;
- Cut carbon emissions by 60% by 2050;
- Achieve good status for all inland water bodies by 2015;
- Meet national objectives for air quality; and
- Promote more sustainable freight transport.

2.3.5 Cultural and historic heritage

The definition of heritage has been set at the international level by the Convention on the Protection of Archaeological Heritage (Valette Convention). This defines heritage relatively broadly as *structures, constructions, groups of buildings, developed sites, moveable objects, monuments of other kinds as well as their context, whether situated on land or under water*. Government planning guidance makes it clear that development plans need to reconcile the need for development with the interests of cultural heritage and archaeology.

3 Baseline Information

3.1 Purpose of Baseline Data Collection

Baseline information provides the basis for predicting and monitoring effects and helps to identify sustainability issues and problems. Sufficient information about the current and likely future state of Bradford District should be collected to allow effects of the Waste DPD to be adequately predicted. The Core Strategy SA Scoping Report includes a comprehensive collection of baseline data focused on the broad social, environmental and economic characteristics of the district. This set of baseline information is set out in Appendix 4 of the Core Strategy SA report. It is not necessary to repeat this baseline data here. However, it is necessary to collect further information that will help to refine the SA framework and help guide the waste planning team regarding selection of issues and options.

The collection of baseline data and background information for a specialist DPD (such as a Waste DPD or a Minerals DPD) has slightly different characteristics to that of a Core Strategy, for example. Although it is important to collect broad social, environmental and economic information (as has already been reported in Appendix 4 of the Core Strategy SA Scoping Report) it is also important to collect other information. Examples include information on how the different ways to manage and dispose of waste can impact upon sustainability – this can then help to set the scope for the assessment and provide evidence for the assessment. It is also necessary to ensure that the data collected on the waste situation in Bradford is more detailed than the broad information reported in the Core Strategy SA Scoping Report. This data also needs to address trends and more detailed comparison with other areas.

In light of this, Appendix 3 of this report sets out a technical paper which sets out details on each common waste management technology. The purpose of the briefing paper is to provide an evidence base on the sustainability effects of different technologies for staff to use when carrying out the appraisals of the Waste DPD.

The following information was derived from:

- Waste Treatment Project Outline Business Case January 2008;
- Core Strategy Issues and Options: Topic Paper 8, January 2007;
- Municipal Waste Management Strategy 2005;
- Yorkshire & Humber Regional Waste Strategy 'Let's take it from the tip'(2003); and
- Best Value Performance Indicators (BVPIs) and corporate performance indicators published on Bradford MDC's website.

3.2 Introduction

Bradford MDC covers an area of 141 square miles (36,536 hectares), and contains some 200,000 domestic properties. The vast majority of municipal waste is delivered directly to the 2 transfer stations (in Bradford to the south of the District, and Keighley to the north). The waste is bulk loaded and transported by road to landfill sites in Wakefield and Skipton

(outside the district). The volume of waste produced is currently growing at approximately 2-3% per annum. Bradford's Municipal Waste Management Strategy outlines the current management of the waste stream and details the challenging targets set by Government through policy and other legislative drivers such as the Landfill Allowance Trading Scheme. The Strategy analyses how these drivers seek to divert municipal waste from landfill, increase recycling and move the management of waste up the waste hierarchy. The strategy acknowledges the need for a step change to the management of municipal waste, up the waste hierarchy and away from landfilling.

3.3 Waste Production in Bradford

The types of municipal waste produced in Bradford (for 2005/06) are identified in the table below. The information was derived from the Waste Treatment Project Outline Business Case January 2008.

Table 2: Wastes produced in 2005/06

| Type of waste | Bradford District (tonnes) |
|--|---|
| Residual domestic kerbside collections | 147,691 |
| Domestic kerbside recycling | 11,211 |
| Domestic kerbside composting | 1,792 |
| Other domestic residual | 5,229 |
| Total Collected Domestic | 165,933 |
| HWRC residual | 21,961 |
| HWRC recycling | 7,370 |
| HWRC composting | 15,520 |
| Total HWRC | 44,851 |
| Bring sites (+MRF) | 4,024 |
| TOTAL DOMESTIC WASTES | 214,808 |
| Non domestic trade waste | 35,603 |
| Non domestic sweepings | 11,402 |
| Total Non Domestic Wastes | 47,005 |
| TOTAL MUNICIPAL SOLID WASTES | 261,813 |
| Total recycling and composting | 39,927 Total: 22,615 (recycling) and 17,312 (composting) (19% of domestic waste) |
| Total residual | 221,886 |
| Total MSW | 261,813 |

3.4 Waste Collection, Treatment and Disposal Services

The council operates the following waste collection services.

Table 3: Waste Collection Services

| Waste Collection Services |
|---|
| The Council operates 4 very different and discrete waste collection services. Operating from two bases, Harris Street at Bradford and Stockbridge at Keighley, 185 operational staff, utilising 60 frontline vehicles, collect approximately 210,000 tonnes of waste per annum. |
| Domestic Refuse Collection |
| The domestic collection service is delivered with 31 operational rounds, of these 28 service the urban areas utilising 26 tonne vehicles with a driver and 2 loaders. The rural areas represent 60% of the district are serviced with 3 rounds operating on 11 tonne vehicles with a driver and loader. The Authority began the introduction of wheeled bins in 1998 and completed the process in December 2000. The weekly service collects 162,000 tonnes annually of domestic waste from 200,000 households. |
| Recycling |
| The division collects paper and glass via separate 240 litre wheeled bins from 120,000 households across the District. The monthly service uses 26 tonnes compaction vehicles to collect over 10,000 tonnes of recyclates per annum. |
| Bulky Household Collection |
| Three dedicated bulk collection crews of a driver and one operative collect 3,000 tonnes of bulky waste from around of 30,000 requests per annum. |
| Trade Waste Service |
| The trade portfolio has 5,500 customers and a turnover of £3.7m. There are 22 operational staff operating 10 frontline vehicles. The service collects 43,000 tonnes of trade waste from a variety of commercial and industrial premises. |

To handle all the waste collected by the above, the Council operates a number of facilities and functions.

Table 4: Waste Treatment and Disposal Services in the District

| Transfer Stations |
|---|
| There are 2 transfer stations: <ul style="list-style-type: none"> • Royd Way, Keighley - handles approximately 70,000 t/pa • Bowling Back Lane, Bradford - handles approximately 180,000 t/pa These sites are purpose built facilities, providing weighing in and out of all loads, and categorising waste into type, source and destination. The sites utilise large items of plant and 44 tonne road going haulage and are open 362 days per year. <p>Currently Bradford transfer station hauls to Welbeck landfill near Wakefield, operated by WRG (contracted minimum of 160,000 t/pa): Keighley transfer station hauls to Skibedon Landfill near Skipton, operated by Yorwaste (contracted minimum of 60,000 t/pa). Landfill contracts end in 2010 but it is likely that BMDC will need to procure further landfill contracts to 2015.</p> |

The transfer sites also receive waste directly from traders and commercial waste collections for which a charge is levied. They also offer a public weighbridge facility for which a charge is levied. A household waste recycling centre is also provided at each transfer station.

Materials Reclamation Facility (MRF)

A small MRF is located at Bowling Back Lane and processes waste for recycling. Dry recyclables are received from Household Waste Recycling Centres, bring sites and wheeled bin recycling schemes. The facility incorporates a sorting and picking station, magnetic separations, and metal, aluminium, card, paper, textile and plastic baling equipment. Once recycling waste is received, the waste is cleaned up and sorted into various types and grades and put into a suitable form for onward transportation to specialist recycling merchants. Any reject or non suitable materials are deposited as a waste into the adjoining transfer station.

Household Waste Recycling Centres

There are 7 sites located throughout the District, (Bowling Back Lane, Bradford, Royds Way, Keighley, Sugden End, Cross Roads, Keighley, Wilson Road, Dealburn Road, Wyke, Dowley Gap, Wagon Lane, Bingley, Ford Hill Depot, Hill End Rd, Queensbury, Golden Butts Depot, Ilkley, Midland Road, Bradford). The sites are open for the public to use to dispose of bulky or excess waste and to deposit materials for recycling (these sites are not available for traders to use).

These sites are open 7 days per week, 362 days per year, and are serviced by a fleet of 4 x 32 tonne container handling vehicles. The quality of the site infrastructures varies from well planned sites such as Sugden End, to ones with little space or facilities (e.g. Golden Butts, Ilkley). Significant infrastructure improvements have taken place recently, with further action planned for 2006.

Management of non-municipal waste sources is listed below.

3.4.1 Commercial and Industrial

- There are approximately 10 sites in the District managing general commercial and industrial (C & I) waste. 8 of the sites are located to the south of the district, in or around the City Centre area (particularly the Bowling area), with 2 sites to the north of the District (in the Keighley/Eldwick area). Most of the 10 sites are waste transfer stations, which sort the waste, recycle what is possible and dispose of that material which cannot be recycled to landfill
- There are 4 specialist sites which specialise in managing animal wastes, 2 of the specialist sites are located in the city centre area and 2 to the east of the district in the Thorton/Harecroft area. These sites undertake processes such as rendering and incineration.

3.4.2 Construction and Demolition Waste

Currently there are approximately 8 sites managing construction and demolition (C&D) waste. 7 of the sites are located to the south of the district (near or within the city centre) and 1 site is to the north (in the Keighley area). Most of the sites are waste transfer stations which recycle the material to produce a secondary aggregate and divert the unrecyclable C & D to landfill. 3 of the sites also manage the C & I waste detailed above.

3.4.3 Hazardous Waste

There is currently one major facility managing hazardous waste which is situated in the south of the district (in the Bowling Back Lane area).

3.4.4 Agricultural Waste

There is no facility managing this type of waste in the Bradford District. The farmers currently manage this waste individually on their agricultural holding.

3.5 Waste Composition

In 2002 MEL Research (MEL) was commissioned to undertake an analysis of kerbside collected domestic wastes in Bradford. MEL found that the average Asian household size was 4.58 people, while average for non-Asian was 2.40 people, and also the Asian households had a younger age profile.

In terms of overall weight of waste put out for disposal, Asian households produced 18.36kg / week, while non-Asian households 14.52kg / week. When household size is taken into account, residual weight per capita for Asian household was 4.01kg / week, as against 6.05kg / week for non-Asian households.

Observation as to difference in waste composition showed there to be more kitchen waste and disposable nappies in Asian households, and conversely more glass in non-Asian households.

The survey found surprisingly similar levels of awareness of recycling facilities at household waste sites and drop-off recycling sites, but interestingly Asian households tended to donate higher levels of clothing and textiles to charitable/fund raising collections. Despite higher levels of kitchen waste, Asian households tended not to compost their waste, even where they had a garden.

The survey showed 37% of Asians and 48% of non-Asian households putting garden waste directly into the residual waste stream. The report found that enthusiasm for recycling is probably determined more by levels of deprivation than by ethnicity.

The overall waste composition for waste collected at the kerbside for Bradford is detailed in the table below.

Table 5: Summary MEL Kerbside Waste Composition Analysis (Bradford)

| Waste Stream | Kg per household/week | % by weight |
|-------------------|-----------------------|-------------|
| Putrescibles | 57.0 | 38.6 |
| Paper and card | 33.9 | 23.5 |
| Misc. combustible | 10.6 | 7.4 |
| Glass | 9.8 | 6.9 |

| Waste Stream | Kg per household/week | % by weight |
|-----------------------|-----------------------|-------------|
| Dense plastic | 9.3 | 6.5 |
| Plastic film | 7.2 | 5.0 |
| Textiles | 5.0 | 3.5 |
| Ferrous metal | 4.6 | 3.2 |
| Misc. non-combustible | 2.8 | 2.0 |
| Non-ferrous metal | 2.3 | 1.6 |
| WEEE | 0.7 | 1.5 |
| Fines | 0.4 | 0.3 |
| TOTAL | 143.6 | 100 |

3.5.1 Household Waste Recycling Centres

Some 51,000 tonnes of waste (23% of the District's domestic waste) arises from Bradford's 7 Household Waste Recycling Centres (HWRC). MEL undertook a survey of HWRC waste use and waste types in July 2002. Survey data, plus data held by the department indicates that:

- 50% of all HWRC inputs by weight arises on weekends.
- Around 60% of all inputs are delivered in summer months (April to September).
- The heaviest fractions from the sample representing 75% of total weight are:
 - electrical and electronic equipment 15.6%
 - green waste 14.8%
 - mixed household (bin waste) 14.3%
 - hardcore/rubble 11.3%
 - textiles 10.3%
 - wood 9.1%

The biodegradable content of the HWRC waste surveyed is reproduced in the table below.

Table 6: Biodegradable material, HWRC July 2002

| Primary Category | Sub Category | Friday | Saturday |
|------------------|------------------|--------|----------|
| | | % | % |
| Paper and card | Recyclable paper | 1.4 | 0.9 |
| | Recyclable card | 0.0 | 0.0 |

| Primary Category | Sub Category | Friday | Saturday |
|-----------------------|---------------------------------------|-------------|-------------|
| | | % | % |
| | Cardboard | 4.5 | 2.7 |
| | Non-recyclable paper | 2.8 | 0.9 |
| Textiles | Man made and natural fibres | 4.1 | 6.6 |
| Misc. combustible | Shoes | 0.1 | 0.0 |
| | Wood | 8.9 | 9.2 |
| | Other combustible | 1.4 | 0.3 |
| Misc. non-combustible | Soil | 0.0 | 0.0 |
| | Other non-combustible | 0.8 | 0.1 |
| Putrescible | Soft compostable garden waste | 9.1 | 22.6 |
| | Other putrescibles | 1.6 | 0.0 |
| Fines | Particles >10mm | 0.4 | 0.0 |
| Mixed Household | Normally material for the wheeled bin | 7.8 | 10.6 |
| TOTAL | | 42.9 | 53.9 |

3.6 Recycling and Composting in Bradford

The Government has set (and will continue to revise and review) performance standards relating to such areas as recycling and composting, along with specific guidance as to how definitions these indicators are to be calculated e.g., what materials count and how measured. The current statutory recycling target (2005/06) BV82(a) + (b) for Bradford is 24%. Clearly the achievement of BVPI targets will be a very important feature of any long term strategy for Bradford's waste.

Table 7: Recycling and composing trend data based on BVPIs

| BV Ref Indicator and Description | 04/05 | 04/05 | 05/06 | 05/06 | 06/07 | 06/07 | 07/08 | 07/08 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|
| | Target | Actual | Target | Actual | Target | Actual | Target | Actual |
| 82a: Recycled (%) | 13.5 | 10.4 | 18 | 10.49 | 12 | 12.52 | 14 | 12.19 |
| 82b: Composted (%) | 5.5 | 6.3 | 7.2 | 8.06 | 9 | 12.18 | 10 | 11.61 |
| 82c: Energy recovery (%) | - | 0 | - | 0 | - | 0 | - | 0 |
| 82d: Landfilled (%) | 81 | 83.3 | 74.8 | 81.4 | 78.96 | 77.2 | 76 | 76.19 |
| 84a: Household waste collected per person (kg) | 470 | 468.8 | 480 | 446.5 | 459 | 467.6 | 468 | 444 |
| 87: Cost of waste disposal per tonne (£) | 36.6 | 37.77 | 40.2 | 44.68 | 50.89 | 45.69 | 60.97 | 55.56 |
| 91a: Residents which have kerbside collection of 1 recyclable | 90 | 80.46 | 95 | 100 | 100 | 100 | 100 | 100 |
| 91b: Residents which have kerbside collection of 2 recyclable | - | - | 56.78 | 52 | 93 | 89.29 | 90 | 95.6 |

To achieve the 16.7% recycling target in 2004/5, the Council employed a number of initiatives:

- A diversion rate of nearly 50% is achieved at HWRC;
- A kerbside recycling scheme based on paper is provided to 60% of all Domestic properties on an opt out basis;
- A kerbside recycling scheme based on glass/cans is provided to 10% of all Domestic properties on an opt in basis;
- Drop off banks are provided across the District; and
- Green waste kerbside collection.

3.7 The Future Waste Position in Bradford to 2021

Bradford is subject to a number of waste targets derived from the national, regional and local levels.

At the national level, the following targets apply:

- Landfill: By 2010 reduce the amount of biodegradable municipal waste sent to landfill to 75% of the total generated in 1995; 50% by 2013 and 35% by 2020 (Landfill Directive).
- Recycling and composting of household waste: At least 40% by 2010; 45% by 2015 and 50% by 2020 (Waste Strategy 2007).
- Recovery of municipal waste: 53% by 2010; 67% by 2015 and 75% by 2020 (Waste Strategy 2007).
- Commercial and industrial waste: Reduce amount going to landfill by 20% in 2010 compared to 2004 (Waste Strategy 2007).

At the regional level the following targets apply:

- Waste production: Reduce the annual increase in waste growth to 2% (from 3%) by 2008/09 (Yorkshire and Humber Regional Waste Strategy).
- 100% of waste developments should be in compliance with the Regional Plan's locational criteria in Policy ENV14. 100% of local authorities have allocated sufficient sites in line with Policy ENV14.

Local targets are shown in the BVPI table above.

Predictions have been made at Regional level through the RSS on the likely waste to be managed up to 2021. Predictions have also been made on the landfill capacity, treatment and recycling required for municipal waste and commercial and Industrial waste (in order to meet targets) and these are illustrated below.

Table 8: Municipal solid waste forecasts

| Municipal Solid Waste Forecasts (Thousand Tonnes Per Year) | | | | |
|--|----------------------|------------------------------------|-------------------------------------|--------------------------------|
| Year | Tonnes to be managed | Maximum landfill capacity required | Minimum treatment capacity required | Minimum tonnage to be recycled |
| By 2005 | 265 | 194 (73%) | 72 (27%) | 72 (27%) |
| By 2010 | 279 | 131 (47%) | 148 (53%) | 112 (40%) |
| By 2015 | 296 | 98 (33%) | 198 (67%) | 133 (45%) |
| By 2020 | 318 | 79 (25%) | 238 (75%) | 159 (Min 55%) |

Table 9: Commercial and industrial waste forecasts

| Commercial and Industrial Waste Forecasts (Thousand Tonnes Per Year) (excluding closed gate) | | | |
|--|----------------------|----------------------------|-----------------------------|
| Year | Tonnes to be managed | Landfill capacity required | Treatment capacity required |
| By 2005 | 625 | 206 (33%) | 418 (67%) |
| By 2010 | 628 | 207 (33%) | 420 (67%) |
| By 2015 | 638 | 210 (33%) | 427 (67%) |
| By 2020 | 649 | 214 (33%) | 435 (67%) |

3.8 Identifying Waste Planning Issues

The identification of sustainability issues (including environmental problems as required by the SEA Directive) is an opportunity to define key issues for the Waste DPD and to assist in the development of sustainable plan objectives and options.

The issues have been formulated by the SA team through a review of the likely effects of waste management and from a consideration of the baseline and policy review.

The issues are divided into the broad areas covered by the Bradford general SA framework. These are:

- Energy and resources;
- Response to climate change;
- Air, soil and water quality;
- Natural assets;
- Housing;
- Transport;
- Land use;

- Accessibility and local needs;
- Communities
- Culture, leisure and recreation;
- Safety and security;
- Health (and social welfare);
- Education and training; and
- Local economy and employment.

Table 10: Key Waste Planning Issues

| Topic | Issues to address |
|----------------------------|---|
| Energy & resources | <p>The Waste DPD needs to move waste management up the waste hierarchy. The recovery of energy from waste is an important method of regaining value.</p> <p>Waste minimisation should also be encouraged where possible in order to reduce pressure on natural resources.</p> |
| Response to Climate Change | <p>The Waste DPD should have regard to climate change when developing policy options and aim to reduce the effects of climate change by finding more sustainable forms of waste management.</p> <p>The SA of the plan should contain objectives for both reducing emissions (from the waste management process itself and also transport) and coping with the effects of climate change.</p> |
| Air, soil & water quality | <p>The Waste DPD should have regard for PPS23 (Planning and Pollution Control) when developing policies. The proximity principle should be considered when allocating sites for waste disposal facilities, in order that transportation of waste is minimal. This may help to reduce the impacts on air quality, noise and dust from vehicles.</p> <p>The Waste DPD should ensure that potential contamination of groundwater or surface water are minimised. PPS25 should be taken into account, so as to ensure that waste disposal facilities do not increase the risk of flooding or that facilities are at risk of flooding.</p> |
| Natural assets | <p>The Waste DPD should aim to enhance biodiversity and actively seek to integrate nature conservation objectives with waste planning. Particular regard is needed to the effects on designated habitats (especially those designated under the Habitats Regulations) and linear habitat structures. If development impacts upon protected species or designated sites, compensation measures and mitigation is required. Mitigation should be pro-active through site selection, timing, and consideration of alternatives.</p> |
| Housing | <p>The District's population is expected to rise by 4000 people per annum up to 2018. Waste disposal and management facilities should accommodate this increase in population. Waste management infrastructure is needed in order that increases in population are considered sustainable. The proximity principle is an important one in making new waste management infrastructure sustainable.</p> |
| Accessibility & | <p>Accessibility to recycling centres (in combination with adequate collection of recyclables) is key in encouraging local people to participate in more sustainable</p> |

| Topic | Issues to address |
|-------------------------------|--|
| local needs | waste management. The plan should consider the adequacy of the current infrastructure. |
| Transport | The proximity principle should be considered when allocating sites for waste disposal facilities, in order that transportation of waste is minimal. This may help to reduce the impacts on air quality, noise and dust from vehicles. |
| Land use | Site selection needs to take into account a number of factors in order to balance the need for and the effects of waste management facilities in order to make the best use of land. Previously developed land should be utilised wherever possible. |
| Communities | The Waste DPD should take account of the needs to conserve open spaces and other green infrastructure for recreation. Sites should be located where potential impacts, that may harm human health, amenity or safety, will not affect nearby communities. |
| Culture, leisure & recreation | <p>The Waste DPD should take into account PPG 17 and PPG 21 in preserving the quality of open space. Proposed new facilities must take account of the CRoW Act and should not, where possible, hinder accessibility to open country and common land.</p> <p>The Waste DPD should be committed to PPG 15 (Planning and the Historic Environment) and PPG 16 (Archaeology and Planning) objectives for the effective protection of the historic environment and archaeological remains through site selection.</p> |
| Safety & security | Sites should be located where potential impacts, that may harm human health or safety, will not affect nearby communities. |
| Health (& social welfare) | Waste management needs to be moved up the waste hierarchy in order to reduce potential human health effects. There needs to be a careful balance struck between the proximity principle and locating development where it does not negatively affect the amenity of communities. |
| Education & training | Where possible, the Waste DPD should encourage waste education programmes. |
| Local economy & employment | The Waste DPD should help provide and contribute towards making Bradford an economically prosperous place, without detracting from its environment. The number of people employed in waste management in the UK has been growing. Jobs in sustainable waste management technologies will help to boost the economy. |

4 Developing the SA Framework

4.1 Introduction

The SA framework provides a way in which sustainability effects can be described and compared. At the heart of the SA framework are the sustainability objectives, the achievement of which is measurable using indicators. SA objectives are distinct from the objectives of the plan, though they may in some cases overlap with them. The objectives need to address the full cross-section of sustainability issues, including social, environmental and economic factors laid down by law or policy. The number of SA objectives needs to be sufficient to encompass the breadth inherent in the concept of sustainability, but manageable, in order to produce a succinct framework for future appraisal of the plan.

4.2 Draft Sustainability Appraisal Objectives

The Core Strategy SA process has developed a range of SA objectives and indicators linked with the identification and measurement of progress towards appraisal objectives. See Appendix 4 of the Core Strategy SA Scoping Report for more details.

As part of the scoping process for the Waste DPD it has become clear that it would be useful to refine some of the objectives within the SA framework in order to make them more applicable to waste management development. In the following table, the Core Strategy SA objectives have been included but greyed out. In addition to this care has been taken to ensure that the appraisal framework is compatible with the Regional Sustainable Development Framework, the key planning objectives included in PPS10 and also suggestions given in PPS10 Companion Guide (see Annex A, Table 1). Some new SA objectives have been added since the publication of the Draft Waste DPD SA scoping report and these are marked in *red italic*.

Indicators are often identified at the scoping stage that can be used to help identify the effects of the plan. However, the Waste DPD SA team has chosen to include appraisal questions rather than indicators. There are several reasons for this:

- The use of indicators at this stage can push an appraisal team into using published indicators which may not be relevant to the likely effects of the plan. Appraisal questions are often more helpful in guiding the SA team in distinguishing what the key effects of the plan could be on the SA objectives; and
- The use of indicators in SA becomes more important once significant effects are identified. Indicators can then be selected and used to monitor the significant effects of the plan.

Indicators that can be used to monitor the effects of the plan will be drawn up as part of the SA Report once the significant effects of the plan are identified.

Table 11: Sustainability Appraisal Framework

| Topic | Core Strategy Sustainability Appraisal Objectives | Draft Waste DPD Sustainability Appraisal Objectives | Appraisal Questions. Will the plan... |
|----------------------------|---|---|--|
| Energy and Resources | <p>Ensure the prudent and efficient use of energy and natural resources and the promotion of renewable energy.</p> <p>Minimise the growth in waste and increase the amount of waste which is re-used, recycled and recovered.</p> | <p>Ensure the prudent and efficient use of energy and natural resources and the promotion of renewable energy.</p> <p>Minimise the growth in waste and increase the amount of waste which is re-used, recycled and recovered.</p> | <p>Lead to a reduction of the amount of waste that will require treatment?</p> <p><i>Minimise any adverse impacts on water resources at all stages of waste management?</i></p> <p>Put in place adequate and sustainable treatment facilities?</p> <p>Help the District to meet its recovery and recycling targets?</p> <p>Help the authority meet its quota under the LATS?</p> |
| Response to Climate Change | <p>Reduce the districts impact on climate change and vulnerability to its effects</p> | <p>Reduce the District’s impact on climate change and vulnerability to its effects.</p> | <p>Reduce the potential for greenhouse gas emissions caused by waste management and <i>reduce vulnerability of waste management facilities to the effects of climate change (including increased flooding)?</i></p> <p>Encourage the development of renewables and energy efficiency within the waste sector?</p> |
| Air, Soil & Water Quality | <p>Safeguard and improve air, water and soil resources.</p> | <p>Safeguard and improve air, water and soil resources and reduce the number of people affected by noise and dust from waste management sites.</p> | <p>Change the amount of pollution and nuisance caused by waste management?</p> <p><i>Guide waste management towards areas that help to improve the land resource (for</i></p> |

| Topic | Core Strategy Sustainability Appraisal Objectives | Draft Waste DPD Sustainability Appraisal Objectives | Appraisal Questions. Will the plan... |
|----------------|--|---|---|
| | | | <i>example, towards previously used land and away from valuable agricultural land)?</i> |
| Natural Assets | <p>To conserve and enhance the internationally, nationally and locally valued wildlife species and habitats.</p> <p>Maintain and enhance the character of natural and man made landscapes.</p> | <p>To conserve, <i>restore, expand</i> and enhance the <i>internationally</i>, nationally and locally valued wildlife species and habitats.</p> <p>To maintain, <i>restore</i> and enhance the character, <i>value and diversity</i> of natural and man-made landscapes.</p> <p>Ensure restoration to biodiversity end use for waste (landfill) sites and contribute to realising local and national BAP targets.</p> | <p>Include actions that directly or indirectly affect Natura 2000 sites, SSSIs or other designated sites?</p> <p>Include actions that will cause habitat loss or fragmentation <i>or restoration, expansion or enhancement of wildlife networks or habitats?</i></p> <p>Include actions that help to reach targets or compromise targets of BAPs?</p> <p>Include actions to ensure restoration to biodiversity is a priority where appropriate?</p> <p>Protect, <i>restore</i> and enhance the landscape?</p> |
| Housing | Provide the opportunity for everyone to live in quality housing which reflects individual needs, preferences and resources. | Increase proximity of waste management infrastructure to current and future centres of population in order to reduce mileage traveled | Include actions that change mileage travelled per tonne of waste? |
| Transport | <p>Develop and maintain an integrated and efficient transport network which maximises access whilst minimizing detrimental impacts.</p> <p>Reduce congestion and pollution by increasing transport choice and by</p> | <p>Reduce nuisance caused to communities by waste transport.</p> <p>Encourage a modal shift away from road freight</p> | <p>Cause a change in traffic flows or the nature of traffic (an increase in HGVs for example) that affects communities or areas valued for their environmental importance?</p> <p>Include actions that would encourage a</p> |

| Topic | Core Strategy Sustainability Appraisal Objectives | Draft Waste DPD Sustainability Appraisal Objectives | Appraisal Questions. Will the plan... |
|---------------------------------|---|---|--|
| | reducing the need to travel by lorry / car. | | shift from road freight to rail freight? |
| Land use | Improve the quality of the built environment and make efficient use of existing land and buildings. | Improve the quality of the built environment, protect and enhance historic assets and make efficient use of land. | Reduce the impact of waste management on the quality of the built environment? <i>Maximise use of previously developed land where possible.</i> |
| Historic Environment | Protect and enhance historic assets. | <i>Avoid, protect and enhance historic assets.</i> | Preserve and where relevant enhance sites of built and archaeological heritage? Aim to steer development away from archaeologically sensitive sites? Preserve, manage or enhance the historic environment character and opportunity areas? |
| Accessibility & Local Needs | Improve the quality and range of services available within communities and connections to wider networks. | Improve the quality and range of services available within communities and connections to wider networks. | Improve the accessibility of waste management and treatment services to centres of population? |
| Communities | Promote social cohesion, encourage participation and improve the quality of deprived neighbourhoods. | Ensure local communities take more responsibility for their own waste | Reduce the amount of waste that is treated outside of the District? |
| Culture, Leisure and Recreation | Create good cultural, leisure and recreation activities available to all. | <i>Avoid impacts on open space, cultural, leisure and recreation opportunities</i> | <i>Ensure that open space, cultural, leisure and recreation opportunities are not affected by waste management?</i> |

| Topic | Core Strategy Sustainability Appraisal Objectives | Draft Waste DPD Sustainability Appraisal Objectives | Appraisal Questions. Will the plan... |
|--|---|--|---|
| Safety and Security / Health and Social Welfare | <p>Improve safety and security for people and property.</p> <p>Provide the conditions and services to improve health and well being and reduce inequality to access to health and social care.</p> | <p>Reduce the impact of the waste industry on people's safety and security , health and quality of life</p> | <p>Cause a change in the number of people directly affected by waste management (living in close proximity to a site or an access route) whose impact cannot be mitigated?</p> <p>Cause a cumulative impact on certain communities?</p> |
| Education and Training/ Local Economy and Employment | <p>Promote education and training opportunities which build the skills and capacity of the population.</p> <p>Increase the number of high quality job opportunities suited to the needs of the local workforce.</p> <p>Support investment and enterprise that respects the needs of a local area.</p> | <p>Support employment in the waste industry for local people.</p> <p>Ensure the provision of adequate waste management capacity.</p> | <p>Include actions that change the number of local people directly employed in <i>skilled jobs in</i> the waste industry?</p> <p>Include actions that ensure the plan contributes to sustainable levels of economic growth by maintaining an adequate provision of waste management capability?</p> |

5 Next Steps

5.1 Consultation

The SA guidance produced by the ODPM recommends that LPAs consult on the basis of a scoping report presenting the information collected at this stage. To meet the requirements of the SEA Directive, the LPA must seek the views of the statutory environmental consultation bodies designated in the SEA Regulations (Natural England, English Heritage and the Environment Agency) on the scope and level of detail of the environmental information to be included in the SA Report. It is also desirable for other bodies to be consulted as the LPA considers appropriate, with a balance between those concerned with social, environmental and economic issues. LPAs should allow 5 weeks for this stage of consultation, as required by the SEA Regulations.

In overall terms, the Statement of Community Involvement is the element in the new planning system that sets out how and when Bradford Council will involve the local community, stakeholders and other interested parties in the preparation of the documents that form part of the LDF and in decisions on future planning applications. The Statement of Community Involvement can be viewed on the Council's website at www.bradford.gov.uk/planning, Section 4 on community involvement in the LDF process is particularly relevant. Documents relating to preparation of the SA, initially the text of this scoping report, will be available on the Council's website during the consultation period. As part of the LDF process, preparation of the SA, particularly the later stages, will be influenced by the steps the authority takes to encourage participation and the framework set out in the Statement of Community Involvement.

This Scoping Report was first published in July 2007 and a full consultation exercise was undertaken at this time. This report is an update of the original Scoping Report. Due to the fact that the SA framework has changed and this constitutes a change in scope of the SA, this report will be subject to another round of consultation. For more details see below.

5.2 Assessing the effects of the plan

The next stage after the production of and consultation on the scoping report is *Stage B: Developing and refining issues, options and sites and assessing the effects of the plan*. This entails providing information to the plan development team in order to help them develop and refine plan options. The SA team will assist the plan development team by providing sustainability information at two key times. These are:

5.2.1 Issues and Options Stage

The SA framework set out in this scoping report will, following consultation, be used to influence the development and early analysis of issues and options. As the early work on issues and options for the Waste DPD will focus on site selection, the SA framework will further be refined into site selection criteria. These criteria will be used in conjunction with GIS mapping in order to help the development plan team to identify potential waste

management sites. It is expected that the criteria will draw heavily on the locational criteria included in Annex E of PPS10 which includes the following issues:

- Protection of water resources;
- Land instability;
- Visual intrusion;
- Nature conservation;
- Historic environment and built heritage;
- Traffic and access;
- Air emissions, including dust;
- Odours;
- Vermin and birds;
- Noise and vibration;
- Litter; and
- Potential land use conflict.

5.2.2 Preferred Options Stage

The SA framework will then be used to carry out a more detailed and formal appraisal of the preferred options and sites, once these have been selected. This will take the form of a report comprising the SA of the preferred options for the Waste DPD. Appendix 5 identifies the outline for the full Sustainability Appraisal Report.

5.3 Timescale and getting involved

The version of the Scoping Report has been published for comment. The report will be placed on the Councils web site. It will also be sent to targeted consultees. The Council invites your views on the approach set out in the Updated Scoping report to be sent in writing by 30th January 2009 (see box below for details).

We would like your views on any aspect of this Updated Scoping Report. Please e-mail your comments to: ldf.consultation@bradford.gov.uk

or in writing to:

Bradford Local Development Framework
PO Box 1068
BRADFORD
BD1 5WZ

Please head the response Waste DPD Sustainability Appraisal – Updated Scoping Report

APPENDIX 1: A summary of the SEA Directive's requirements

Preparation of an environmental report in which the likely significant effects on the environment of implementing the plan or programme, and reasonable alternatives taking into account the objectives and geographical scope of the plan or programme, are identified, described and evaluated. The information to be given is:-

- An outline of the contents, main objectives of the plan or programme, and relationship with other relevant plans and programmes;
- The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme;
- The environmental characteristics of areas likely to be significantly affected;
- Any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas designated pursuant to Directives 79/409/EEC and 92/43/EEC;
- The environmental protection objectives, established at international, Community or national level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation;
- The likely significant effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors. (Footnote: These effects should include secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects);
- The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme;
- An outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information;
- A description of measures envisaged concerning monitoring in accordance with Article 10;
- A non-technical summary of the information provided under the above headings.

The report shall include the information that may reasonable be required taking into account current knowledge and methods of assessment, the contents and level of detail in the plan or programme, its stage in the decision-making process and the extent to which certain matters are more appropriately assessed at different levels in that process to avoid duplication of the assessment (Article 5.2)

Consultation

- Authorities with environmental responsibility, when deciding on the scope and level of detail of the information to be included in the environmental report (Article 5.4).
- Authorities with environmental responsibility and the public shall be given an early and effective opportunity within appropriate time frames to express their opinion on the draft plan or programme and the accompanying environmental report before the adoption of the plan or programme (Article 6.1, 6.2)
- Other EU Member States, where the implementation of the plan or programme is likely to have significant effects on the environment of that country (Article 7).

Taking the environmental report and the results of the consultations into account in decision-making (Article 8).

Provision of information on the decision:

When the plan or programme is adopted, the public and any countries consulted under Article 7 shall be informed and the following made available to those so informed:-

- The plan or programme as adopted;
- A statement summarising how environmental considerations have been integrated into the plan or programme and how the environmental report pursuant to Article 5, the opinions expressed pursuant to Article 6 and the results of consultations entered into pursuant to Article 7 have been taken into account in accordance with Article 8, and the reasons for choosing the plan or programme as adopted, in the light of the other reasonable alternatives dealt with; and
- The measures decided concerning monitoring (Article 9 and 10).

Monitoring of the significant environmental effects of the plan's or programme's implementation (Article 10).

Quality assurance: environmental reports should be of a sufficient standard to meet the requirements of the SEA Directive (Article 12).

APPENDIX 2: Review of Plans, Policies, Programmes and Objectives

Waste Plans, Policies, Programmes and Objectives

| Document title | Relevant objectives | Relevant targets & indicators | Implications for the waste DPD |
|---|--|-------------------------------|---|
| INTERNATIONAL | | | |
| <p>Directive 2006/12/EC of the European Parliament and of the Council of 5 April 2006 on Waste</p> <p>Member states need to take appropriate measures to encourage 'the prevention, or reduction of waste production and its harmfulness, and to promote the recovery of waste by means of recycling, re-use or reclamation.</p> | <p>This directive replaces and consolidates the Waste Framework Directive 75/442/EEC (as amended by 91/56/EEC). It has been produced to clarify and rationalize the legislation on waste but it does not change the content of the WFD – details shown below</p> <p>Waste Framework Directive (WFD) provides the overarching legislative framework for the collection, transport, recovery and disposal of waste, and includes a common definition of waste. The WFD requires Member States of the EU to establish both a network of disposal facilities and competent authorities with responsibility for issuing waste management authorisations and licenses. Member States may also introduce regulations which specify which waste recovery operations and businesses are exempt from the licensing regimes and the conditions for those exemptions.</p> <p>An important objective of the WFD is to ensure the recovery of waste or its disposal without endangering human health and the environment. Greater emphasis is also placed on the prevention, reduction, re-use and recycling of waste.</p> <p>Article 4. Member States shall take the necessary measures to ensure that waste is recovered or disposed of without endangering human health and without using processes or methods which could harm the environment, and in particular:</p> | <p>None</p> | <p>Ensure policies, site allocations and technologies (if applicable) are chosen that minimise the effects on human health and the environment.</p> <p>Development control policies should examine the factors listed in Article 4.</p> |

| Document title | Relevant objectives | Relevant targets & indicators | Implications for the waste DPD |
|---|---|---|---|
| INTERNATIONAL | | | |
| | <ul style="list-style-type: none"> Without risk to water, air, soil and plants and animals; Without causing a nuisance through noise or odours; and Without adversely affecting the countryside or places of special interest. | | |
| <p>The Landfill Directive 1999 1999/31/EC</p> <p>The aim of this directive is to move waste management practices away from landfill by reducing waste production and adopting waste management methods which focus on resource recovery, together with a requirement to manage and dispose of waste near to its point of origin.</p> | <p>Sets out requirements to ensure that where landfilling takes place the environmental impacts are understood and mitigated against. The Directive also includes mandatory targets to reduce the amount of waste disposed of by landfill and more stringent criteria in terms of the type of waste which can be accepted at landfills including requirements to pre-treat hazardous waste. Also introduces changes to landfill facilities and in particular bans the co-disposal of hazardous and non-hazardous wastes from July 2004 and bans the landfill of whole tyres from 2003 and shredded tyres from 2006.</p> | <p>Reduction of the amount of biodegradable municipal waste sent to landfill to 75% of the total generated in 1995 by 2010, 50% by 2013 and 35% by 2020.</p> <p>These targets have now been interpreted by DEFRA and issued as specific targets for each Waste Disposal Authority requiring a step-wise reduction year on year of BMW to landfill as introduced by the Landfill Allowance Trading Scheme.</p> | <p>A strategy should be formulated in which landfill is used only for disposal of residual waste.</p> |
| <p>Directive on the Incineration of Waste</p> | <p>This Directive focuses on protecting human health by reducing air, water and soil pollution from incineration, including incineration of waste as a method of energy generation. It covers non-toxic municipal waste, including sewage sludge,</p> | <p>There are no formal targets although the Directive sets a large number of limit values for</p> | <p>There are no direct implications of this for the Waste DPD as this issue is more directly related to the</p> |

| Document title | Relevant objectives | Relevant targets & indicators | Implications for the waste DPD |
|--|---|--|---|
| INTERNATIONAL | | | |
| <p>2000/76/EC</p> <p>The aim of this Directive is to reduce pollution from waste incineration.</p> | <p>tyres and hospital waste and toxic wastes like oils and solvents. In England and Wales this Directive was enacted by <i>The Waste Incineration (England and Wales) Regulations 2002</i></p> | <p>emissions of various pollutants, to which incinerators of waste will have to adhere to.</p> | <p>pollution control regime.</p> |
| <p>The Waste Electrical and Electronic Equipment (WEEE) Directive</p> <p>2002/96/EC and 2003/108/EC</p> <p>The WEEE Directive aims to reduce the amount of this waste going to landfill, and increase recovery and recycling rates</p> | <p>Extends the principle of producer responsibility and requires manufacturers to reach targets for the re-use, recycling and recovery of waste electronic and electrical equipment.</p> <p>In England and Wales this Directive was enacted through the <i>Waste Electrical and Electronic Equipment (WEEE) Regulations 2006</i></p> | <p>Recovery targets are given per type of appliance, ranging between 75%-80%.</p> | <p>The Waste DPD will need to plan for facilities that can recover WEEE waste.</p> |
| <p>The Packaging and Packaging Waste Directive</p> <p>2004/12/EC</p> <p>The aim of this Directive is to</p> | <p>The Directive aims to simplify the management of packaging waste in the EU and tackle the impact that packaging and packaging waste have on the environment. Although the primary objective is to increase the recovery and recycling of packaging waste in a consistent way in all</p> <p>Member States of the EU (so as to avoid barriers to trade), priority is also given to reducing the amount of packaging used</p> | <p>By 2008, overall recovery target of 60% and a recycling target of 55-80%. Minimum packaging targets specified are glass 60%, paper/board 60%, metals 50%, plastics 22.5%,</p> | <p>The Waste DPD will need to plan for facilities that can recover packaging waste.</p> |

| Document title | Relevant objectives | Relevant targets & indicators | Implications for the waste DPD |
|--|---|---|--|
| INTERNATIONAL | | | |
| increase the recycling and recovery of waste packaging. | and the reuse of packaging. | wood 15%. | |
| <p>The End-of-Life Vehicle (ELV) Directive 2000/53/EC</p> <p>This Directive aims for the prevention of waste from vehicles and, in addition, at the reuse, recycling and other forms of recovery of end-of life vehicles to reduce the disposal of waste.</p> | <p>Objectives include:</p> <ul style="list-style-type: none"> Producers limit the use of certain hazardous substances in the manufacture and promote the recyclability of their vehicles ELVs are subject to de-pollution prior to dismantling, recycling or disposal Treatment facilities operate to higher environmental standards and have permits if they want to deal with undepolluted ELVs Producers pay ‘all or a significant part’ of the costs of treating negative or nil value ELVs at treatment facilities by 2007. <p>In England the Directive was enacted through the <i>End of Life Vehicles Regulations (ELV) 2003</i></p> | Recovery (and recycling) targets of 85% (80%) for 2006 and 95% (85%) for 2015 for end of life motor vehicles. | The Waste DPD will need to plan for facilities that can recover vehicles at a higher environmental standard. |
| <p>Taking Sustainable Use of Resources Forward: A Thematic Strategy on the Prevention and Recycling of Waste</p> | <p>The strategy confirms the use of the waste hierarchy and sets the long term goal of the EU becoming a recycling society that seeks to avoid waste and uses waste as a resource. The following measures will be used to achieve this:</p> <ul style="list-style-type: none"> Simplify and clarify the existing legal framework | None | The Waste DPD should contain policies which will encourage residents and industry to reduce the amount of waste they produce and should seek to encourage reuse, recycling and recovery of |

| Document title | Relevant objectives | Relevant targets & indicators | Implications for the waste DPD |
|--|--|-------------------------------|--------------------------------|
| INTERNATIONAL | | | |
| <p>COM(2005)666</p> <p>Final</p> <p>The strategy sets out how to achieve the long term goal of becoming a recycling society, that seeks to avoid waste and uses waste as a resource.</p> | <ul style="list-style-type: none"> • Renewed emphasis on full and effective implementation by member states • Introduction of life-cycle approach to waste policy • More ambitious waste prevention policies • Better knowledge and information • Development of common reference standards | | <p>value from waste.</p> |

| Document Title | Relevant objectives | Relevant targets and indicators | Implications for the Waste DPD |
|--|--|---|---|
| NATIONAL | | | |
| <p>Waste Strategy 2007</p> <p>The Strategy outlines the need to manage waste in a more sustainable manner through moving the management of waste up the hierarchy, considering the life cycle impacts of waste and linking waste management to the broader sustainable consumption and production agenda. A key focus of the strategy is the impact of waste on climate change.</p> | <p>The Government's vision is of a waste collection and treatment infrastructure where:</p> <ul style="list-style-type: none"> Increasing amounts of waste are separated by householders and other producers themselves for joint kerbside collection. Greater value is derived from unwanted products that can be reused; Valuable materials find ready markets as recycle and other wastes have electricity and heat recovered where appropriate; Better joining up between municipal and private sectors enables provision of local as well as regional facilities, with plant treating both merchant and municipal wastes wherever practicable; and Properly managed landfill (with capture and use of methane gas emitted) is available to take those wastes from which no useful value can be extracted economically from further treatment. The Strategy sets out a number of new challenging targets for improved waste management in England and Wales. These are outlined in the column to the right. | <p>Higher national targets for re-use, recycling and composting of household waste – at least 40% by 2010, 45% by 2015 and 50% by 2020;</p> <p>Setting national targets for the recovery of municipal waste – 53% by 2010, 67% by 2015 and 75% by 2020.</p> <p>Reducing the amount of commercial and industrial waste going to landfill by at least 20% by 2010 compared to 2004;</p> | <p>In order to achieve more sustainable waste management, the Waste DPD must bring about dramatic changes within very short timescales in the way that waste is treated by aiming to meet the targets for reduction in landfill, by increasing recycling, composting and recovery. Facilities for recycling, composting and energy recovery will be needed in order to reach these targets.</p> |

| Document Title | Relevant objectives | Relevant targets and indicators | Implications for the Waste DPD |
|---|--|---|---|
| NATIONAL | | | |
| <p>Changes to Waste Management Decision Making Principles in Waste Strategy 2000 (Defra, 2005)</p> <p>This is the update of the Waste Strategy 2000. The document stresses that decisions on waste management, including decisions on suitable sites and installations for treatment and disposal, should have the objective of reducing the overall environmental impact and protecting human health and the environment.</p> | <p>Waste decision-making should be based on the following principles:</p> <ul style="list-style-type: none"> • Individuals, communities and organisations should take responsibility for their waste. • Consider alternative options in a systematic way. • Effective community engagement should be an important and integral part of the decision-making process. • The environmental impacts for possible options should be assessed looking at both the long and short term. • Decisions should seek to deliver the environmental outcomes that do most to meet the objectives in the National Waste Strategy, taking account of what is feasible and what is an acceptable cost. | <p>Recover value from 53% of municipal waste by 2010, 67% by 2015 and 75% by 2020;</p> <p>To recycle or compost at least 40% of household waste by 2010, 45% by 2015 and 50% by 2020.</p> | |
| <p>Waste not. Want not (2002) & the Government's</p> | <p>The overall aim of policy should be to ensure that, by 2020, England has a world class waste management system that allows the nation to prosper whilst reducing harm to the environment and preserving resources for future generations.</p> | <p>The key success measures for the strategy in the report, if taken forward by government,</p> | <p>The strategy will need to plan for the recovery, recycling and composting of waste and only plan for landfill of the residual waste left</p> |

| Document Title | Relevant objectives | Relevant targets and indicators | Implications for the Waste DPD |
|--|---|--|---|
| NATIONAL | | | |
| <p>Response</p> <p>In December 2002 the Cabinet Office's Strategy Unit published its report entitled "Waste not, Want not" on the proposed revision of the Waste Strategy 2000 and the future national "framework" for waste.</p> | <p>This means:</p> <ul style="list-style-type: none"> • Decoupling growth in the amount of waste from growth in GDP i.e. waste growth rates that are lower than GDP growth rates; • Fully including the costs of disposing of waste in the prices of products and services; and • Identifying the waste management options that will deliver the overall aim at least cost. • The government has responded to the 46 recommendations within this report in May 2003. The government stated that any increase in recycling and composting rate of households to 45% by 2020 must be fully funded and not place further burdens on the council tax payer. | <p>will be:</p> <p>the roll out of kerbside recycling collections;</p> <p>at least 35% of household waste will be composted or recycled by 2010 and 45% by 2015;</p> <p>an absolute reduction in the amount of municipal waste going to landfill annually from 2007.</p> | <p>behind after recycling and recovery.</p> |
| <p>Waste & Emissions Trading Act (2003)</p> <p>Landfill (Scheme Year and Maximum Landfill Amount) Regulations (2004)</p> <p>The Landfill Allowances and Trading Scheme (England) Regulations (2004)</p> | <p>The Waste & Emissions Trading Act (2003) places a duty on waste disposal authorities, including Bradford, to reduce the amount of biodegradable waste disposed of to landfill and also provides the legal framework for the Landfill Allowances Trading Scheme (LATS). The government has given allowances to all English WDAs for the period to 2020. Under the Landfill Allowances and Trading Scheme (England) Regulations (2004), the allowances can be traded, banked and borrowed to enable the WDAs to meet their obligations in the most cost effective way.</p> <p>Following the adoption of Landfill Allowances and Trading Scheme (England) (Amendment) Regulations (2005), a fixed</p> | <p>By 2010 reduce the biodegradable municipal waste disposed to landfill to 75% of that produced in 1995;</p> <p>by 2013 reduce biodegradable municipal waste disposed to landfill to 50% of that produced in 1995;</p> <p>by 2020 reduce biodegradable municipal</p> | <p>Bradford council is likely to be able to keep within its landfill allowances in 2008/09 but is likely to need to trade allowances in 2009/2010 (City of Bradford Metropolitan District Council committee minutes: <i>Joint Report of the Director of Environmental Services and the Acting Finance Director to the meeting of the Executive to be held on September 19, 2006</i>).</p> |

| Document Title | Relevant objectives | Relevant targets and indicators | Implications for the Waste DPD |
|---|--|---|---|
| NATIONAL | | | |
| <p>The Landfill Allowances and Trading Scheme (England) (Amendment) Regulations (2005)</p> <p>These regulations set up the formal processes by which England can reduce the amount of waste going to landfill.</p> | <p>penalty of £150 per tonne will be incurred if a WDA breaches its landfill allowance target in the scheme year. In addition, the Government has reserved the right to pass on any European Fine imposed on the UK, by the European Court of Justice for missing the Landfill Directive targets (in 2009/10, 2012/13 and 2019/20), to the local authorities, which have exceeded their allowances. This could amount to a share in a fine as high £0.5 million per day until the national target is met.</p> <p>Under the Waste & Emissions Trading Act (2003), joint collection and disposal authorities have a duty to produce a Municipal Waste Management Plan.</p> | <p>waste disposed to landfill to 35% of that produced in 1995.</p> | <p>It is vital that the strategy addresses diversion from landfill by allocating sites for waste recovery.</p> |
| <p>Producer Responsibility Obligations (Packaging Waste) Regulations 2005</p> <p>Enacts the Packaging Waste Directive.</p> | <p>Specified businesses are to recover and recycle specified tonnages of packaging waste each year and to certify that this recovery and recycling has been achieved.</p> | <p>The UK Business Recycling targets: overall recovery / to be achieved through recycling =</p> <ul style="list-style-type: none"> • 2006 = 66 / 92% • 2007 = 67 / 92% • 2008 = 68 / 92% • 2009 = 69 / 92% • 2010 = 70 / 92% | <p>The Waste DPD must plan for enough facilities to deal with this type of waste.</p> |
| <p>Planning Policy Statement 10: Planning for Sustainable Waste Management</p> | <p>The Government expects waste planning authorities to:</p> <ul style="list-style-type: none"> • Take full account of the National Waste Strategy; • Take an integrated approach to waste management; • Move substantially away from landfill towards recycling, | <p>None</p> | <p>The Waste DD will obviously need to ensure that it adheres to PPS10 as the Government's planning guidance on waste. However, perhaps the most fundamental message of PPS10 is the speed in</p> |

| Document Title | Relevant objectives | Relevant targets and indicators | Implications for the Waste DPD |
|--|--|---------------------------------|---|
| NATIONAL | | | |
| <p>(PSS10)</p> <p>PPS 10 provides advice to planners on delivering sustainable development through driving waste management up the waste hierarchy.</p> | <p>composting and energy from waste;</p> <ul style="list-style-type: none"> • Ensure consistency with the quantity of tradable landfill allowances available and with statutory performance standards for recycling; • Implement national planning policy for sustainable waste management fully and quickly; • Ensure their local assessments reflect and in turn inform regional spatial strategies; and • Promote informed debate with the public and businesses in their area about the need for waste management facilities and available options. | | <p>which these facilities need to be put in place in order to reach vital targets and ensure environmental protection.</p> |
| <p>Planning Policy Statement 10: Planning for Sustainable Waste Management (PSS10) Companion Guide (2006)</p> <p>The guide provides advice, ideas, examples of current practice and signposts to further information in order</p> | <p>The guide aims to help Local Authorities and Regional Planning Bodies deliver key Planning Objectives. These objectives are:</p> <ul style="list-style-type: none"> • 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; • Provide a framework in which communities take more responsibility for their own waste, and enable sufficient and timely provision of waste management facilities; • Help implement the national waste strategy, and supporting targets and other obligations; • Help secure the recovery or disposal of waste without endangering human health and without harming the | None | <p>The decision making principles set out within the document make it clear that waste management should be considered alongside other spatial planning concerns and plans should recognise the positive contribution that waste management can make to the development of sustainable communities.</p> |

| Document Title | Relevant objectives | Relevant targets and indicators | Implications for the Waste DPD |
|--|---|---------------------------------|--|
| NATIONAL | | | |
| to help Local Authorities and regional planning bodies. | <p>environment;</p> <ul style="list-style-type: none"> • Reflect the concerns and interests of 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 facilities 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. | | |
| <p>Meeting the energy challenge : A white Paper on Energy 2007</p> <p>The White Paper sets out the Government’s international and domestic energy strategy to respond to changing energy circumstances. The</p> | <p>The proposed changes to the Renewables Obligation will boost support for renewable CHP, including the recovery of energy from waste and some types of microgeneration technologies. Energy generated either directly from waste or through the use of a refuse derived fuel has benefits for security of supply. In addition, the biodegradable fraction of waste is a renewable resource. The Renewables Obligation (RO) will remain open to the biomass fraction of waste used in good quality CHP stations and power stations using gasification, pyrolysis, and anaerobic digestion. The government also proposes to bring forward new legislation to overcome the current barriers to eligible energy-from-waste power stations receiving RO Certificates.</p> | None | <p>The Waste DPD should be aware of the proposed changes to the Renewables Obligation and the opportunities to generate energy from waste. The opportunities to use waste as a biomass fuel and the potential future development of the nuclear industry and the implications on waste disposal.</p> |

| Document Title | Relevant objectives | Relevant targets and indicators | Implications for the Waste DPD |
|---|--|---------------------------------|--------------------------------|
| NATIONAL | | | |
| paper sets out how the government intends to address two long-term energy challenges: tackling climate change and ensuring secure, clean and affordable energy as well as delivering energy policy goals, implementing the measures in the Energy Review Report and the Budget. | <p>Recognition of anaerobic digestion as an emerging technology which offers the potential to generate renewable energy from manures and slurries and certain organic wastes such as food waste, whilst at the same time mitigating methane emissions from agriculture and landfill</p> <p>The Biomass Strategy identifies significant potential to increase the domestic supply of biomass, through the more efficient utilisation of agricultural land, unmanaged woodland and waste.</p> <p>The white paper does not contain specific proposals for building new nuclear power stations. However, it does not rule out the possibility that at some point in the future new nuclear build might be necessary if we are to meet our carbon targets. It recognizes that there are important issues of nuclear waste to be resolved which include our legacy waste and continued waste arising from other sources. It recognizes that significant practical issues would arise, including the size, number and location of waste management facilities</p> | | |

| Document Title | Relevant objectives | Relevant targets and indicators | Implications for the Waste DPD |
|--|---|---|--|
| REGIONAL | | | |
| Yorkshire & Humber Regional Waste Strategy. 'Let's take it from | <p>The document sets out the following four objectives:</p> <ul style="list-style-type: none"> Gain community support and involvement in the delivery of the strategy (e.g., to implement a regionally based waste | Reduce the annual increase in waste growth to 2% (from 3%) by 2008/9. | The Waste DPD should ensure there is adequate provision of sites and facilities for the recovery of waste. |

| Document Title | Relevant objectives | Relevant targets and indicators | Implications for the Waste DPD |
|---|--|---|---|
| REGIONAL | | | |
| <p>the tip'(2003)</p> <p>The overall aim of the Strategy is to develop more sustainable waste systems across the region</p> | <p>awareness campaign);</p> <ul style="list-style-type: none"> • Reduce waste production and increase re-use, recycling and composting; • Manage residual waste in a sustainable way; • Provide technical support and advice: Establish networks of contacts from local authorities, waste companies, environmental groups, community organisations and individuals. | <p>The region is one of the worst performing in England with an average regional recycling rate of around 6% (8% in West Yorkshire). This will need to be improved to 21% by 2005/6 to attain the first government target deadline.</p> <p>Composting/recycling targets: 30% by 2010/11 (455,000 tonnes in West Yorkshire);and 33.3% by 2015/16 (503,000 tonnes in West Yorkshire).</p> | |
| <p>The Yorkshire and Humber Plan 2008</p> <p>The RSS developed by the Yorkshire and the Humber Regional Assembly has specific policies related to waste.</p> | <p>The RSS defines the waste to be managed for the Region, for the years 2015 and 2021. ENV12: Regional Waste Management Objectives.</p> <ol style="list-style-type: none"> Plans, strategies, investment decisions and programmes should aim to reduce, reuse, recycle and recover as much waste as possible. Local authorities should work with regional partners, including commerce, the Environment Agency, the waste industry, Recycling Action Yorkshire and community groups to ensure the integration of strategies and proposals for sustainable waste management. Local authorities should support the urgent provision of a | <p>Household Waste: Recycle or compost at least 40% by 2010; 45% by 2015 and 50% by 2020.</p> <p>Municipal Waste: Recover 53% by 2010; 67% by 2015 and 75% by 2020.</p> <p>100% of waste</p> | <p>The Waste DPD should support the urgent provision of a combination of facilities and other waste management initiatives which best meets environmental, social and economic needs.</p> |

| Document Title | Relevant objectives | Relevant targets and indicators | Implications for the Waste DPD |
|-----------------|--|--|--------------------------------|
| REGIONAL | | | |
| | <p>combination of facilities and other waste management initiatives which best meets environmental, social and economic needs for their areas based on the following principles:</p> <ul style="list-style-type: none"> • Moving the management of all waste streams up the waste hierarchy. • Achieving all statutory waste management performance targets during the Plan period. • Managing waste at the nearest appropriate location, where necessary by seeking agreement with neighbouring authorities. | <p>developments should be in compliance with the Regional Plan's locational criteria in Policy ENV14. 100% of local authorities have allocated sufficient sites in line with Policy ENV14.</p> <p>The table below shows annual waste apportionment figures for Bradford.</p> | |

| Municipal Solid Waste Forecasts (Thousand Tonnes Per Year) | | | | |
|--|----------------------|------------------------------------|-------------------------------------|--------------------------------|
| Year | Tonnes to be managed | Maximum landfill capacity required | Minimum treatment capacity required | Minimum tonnage to be recycled |
| By 2005 | 265 | 194 (73%) | 72 (27%) | 72 (27%) |
| By 2010 | 279 | 131 (47%) | 148 (53%) | 112 (40%) |
| By 2015 | 296 | 98 (33%) | 198 (67%) | 133 (45%) |
| By 2020 | 318 | 79 (25%) | 238 (75%) | 159 (Min 55%) |

| Commercial and Industrial Waste Forecasts (Thousand Tonnes Per Year) (excluding closed gate) | | | |
|--|----------------------|----------------------------|-----------------------------|
| Year | Tonnes to be managed | Landfill capacity required | Treatment capacity required |
| By 2005 | 625 | 206 (33%) | 418 (67%) |
| By 2010 | 628 | 207 (33%) | 420 (67%) |
| By 2015 | 638 | 210 (33%) | 427 (67%) |
| By 2020 | 649 | 214 (33%) | 435 (67%) |

| Document Title | Relevant objectives | Relevant targets and indicators | Implications for the Waste DPD |
|---|--|---|---|
| LOCAL | | | |
| Municipal Waste Management Strategy 2005 | The Strategy should also: elevate the waste management activities up the waste hierarchy to more sustainable levels, achieve self-sufficiency and manage wastes in accordance with | The Waste Strategy is set within the context of the National Waste Strategy | The strategy considers that it will be very difficult to achieve the landfill reduction and recovery targets with |

| Document Title | Relevant objectives | Relevant targets and indicators | Implications for the Waste DPD |
|--|---|---|--|
| <p>Aims & objectives are 'to focus on the waste management issues facing the Council to 2020, determine what actions need to be considered to address the issues, and assess how this will influence the procurement of the long term waste treatment & disposal services for the Council's municipal wastes'.</p> | <p>the proximity principle, achieve local and national targets, improve public awareness of waste and environmental issues and provide value for money. The waste hierarchy is founded on the idea that the higher levels of the hierarchy reflect a more sustainable way of managing municipal wastes, and therefore all waste management activities should be aimed at moving waste management up the hierarchy, taking account of costs and benefits. Re-use is at the top of the hierarchy, followed by re-use, recycle and compost, energy from waste and finally landfill, which is only appropriate if none of the foregoing higher options are feasible. The objectives of the review are to review where we are today, identify where we want to get to by 2020 and beyond, identify what we need to do to get there and consider how we will implement the necessary actions ie the procurement strategy.</p> | <p>which sets targets for local authorities to achieve. These are to reduce the amount of biodegradable municipal waste going to landfill in line with the EU Landfill Directive and to recover value from the biodegradable municipal waste, with specific targets for recycling and composting, and the need to extract energy via some form of thermal conversion.</p> | <p>Bradford's present recycling / composting operations. Therefore some form of further treatment and energy recovery will be required both in the short term and longer term and will be the major subject of the planned future procurement exercises. Any future procurement of waste treatment facilities will depend on the local planning system delivering the sites upon which such facilities will be built and operated.</p> |

Other Plans, Policies, Programmes and Objectives

Many of the Plans, Policies, Programmes and Objectives will not have direct implications for the Waste DPD. Therefore, a column on implications has not been included. The implications for all these plans as a whole is summarised in the main scoping report.

| Document title | Relevant objectives | Relevant targets & indicators |
|---|--|--|
| INTERNATIONAL | | |
| SUSTAINABLE DEVELOPMENT, SPATIAL PLANNING AND ENVIRONMENTAL STRATEGY/POLICY | | |
| The Sixth Environmental Action Program of the European Community 1600/2002/EEC | Clean Air for Europe, Soil Protection, Sustainable use of pesticides, Protect and conserve the marine environment, Waste prevention and recycling and Sustainable use of natural resources and the urban environment are all objectives of the strategy. The Action Program encourages the protection of the marine environment and sustainable use of natural resources and the urban environment. | None |
| The World Summit on Sustainable Development, Johannesburg (United Nations) (2002) Commitments arising from Johannesburg Summit | <p>The World Summit on Sustainable Development proposed broad-scale principles which should underlie sustainable development and growth. It include objectives such as:</p> <ul style="list-style-type: none"> • Greater resource efficiency (including decoupling economic growth from environmental degradation); • Support business innovation and take-up of best practice in technology and management; • New technology development; • Technology demonstration and risk limitation. | There are a number of follow-up processes e.g. "Significantly" reduce rate of loss of biodiversity by 2010, but no specific targets. |
| Environment 2010: Our Future, Our Choice (EU Sixth | The latest Environment Action Programme gives a strategic direction to the Commission's environmental policy over the next decade, as the Community prepares to expand its boundaries. The new programme identifies four | None |

| Document title | Relevant objectives | Relevant targets & indicators |
|--|---|-------------------------------|
| Environment Action Programme) | environmental areas to be tackled for improvements: Climate Change, Nature and Biodiversity, Environment and Health and Quality of Life and, Natural Resources and Waste. | |
| European Spatial Development Perspective 1999 | European cultural landscapes, cities and towns, as well as a variety of natural and historic monuments are part of the European Heritage. Its fostering should be an important part of modern architecture, urban and landscape planning in all regions of the EU. A big challenge for spatial development policy is to contribute to the objectives, announced by the EU during international conferences concerning the environment and climate, of reducing emissions into the global ecological system. The document defines balanced spatial development as “reconciling the social and economic claims for spatial development with the area’s ecological and cultural functions and, hence contributing to a sustainable and at a larger scale, balanced territorial development.” | None |
| Århus Convention | The Convention creates obligations in three fields or 'pillars': <ul style="list-style-type: none"> • Public access to environmental information; • Public participation in decision-making on matters related to the environment: provision; and • Access to justice (i.e. administrative or judicial review proceedings) in environmental matters. | None |
| THE NATURAL ENVIRONMENT | | |
| EU Habitats Directive 92/43/EC | The Directive provides for the creation of a network of protected areas across the European Union to be known as ‘Natura 2000’ sites. This network includes Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). Member states should maintain or restore in a favourable condition these designated natural habitat types. If a project compromising one of these habitats must proceed in spite of negative conservation impacts due to it being in the | None |

| Document title | Relevant objectives | Relevant targets & indicators |
|--|--|-------------------------------|
| | public interest, compensatory measures must be provided for. Linear structures such as rivers/streams, hedgerows, field boundaries, ponds, etc., that enable movement and migration of species should be preserved. | |
| The EC Directive on the Conservation of Wild Birds 79/409/EEC | Imposes duty on Member States to sustain populations of naturally occurring wild birds by sustaining areas of habitats in order to maintain populations at ecologically and scientifically sound levels. | None |
| The Convention on Biological Diversity, Rio de Janeiro 1992 | This convention was agreed among the vast majority of the world's governments and sets out their commitments to maintaining the world's biodiversity so to achieve more sustainable economic development. The Convention establishes three main goals: the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits from the use of genetic resources. Article 6a requires each Contracting Party to develop national strategies, plans or programmes for the conservation and sustainable use of biological diversity. | None |
| EU Biodiversity Strategy (1998) | <p>The key objective of the Strategy is to anticipate, prevent the causes of significant reduction or loss of biodiversity at the source. There are 4 main themes:</p> <ul style="list-style-type: none"> • Conservation and sustainable use of biological diversity; • Sharing of benefits arising out of the utilisation of genetic resources • Research, identification, monitoring and exchange of information • Education, training and awareness. | None |
| European Landscape | On the 24th of February 2006, the United Kingdom signed the Council of Europe's European Landscape Convention - the first international convention for | None |

| Document title | Relevant objectives | Relevant targets & indicators |
|--|---|---|
| Convention (United Nations, 2006) | the management and protection of landscape. It was formally ratified by Parliament in November 2006. The European Landscape Convention aims to encourage public authorities to adopt policies and measures at local, regional, national and international level for protecting, managing and planning landscapes throughout Europe. Landscape is defined as 'an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors'. The Convention applies this definition to all parts of a country's territory, urban as well as rural areas, to both outstanding and ordinary landscapes, to degraded as well as well-preserved places. The Convention's definition of landscape and its emphasis on action/interaction, human factors and cultural perspectives is well reflected in the UK's national programme of Historic Landscape Characterisation, as part of integrated Landscape Character Assessments. | |
| SOCIAL AND COMMUNITY ISSUES | | |
| World Health Organisation Guideline Values (1996) | The document sets guidelines for healthy noise levels. | Between 23.00 and 07.00 hours, noise levels should not exceed 30 dB LAeq to allow undisturbed sleep. Outdoor noise levels of 50 dB should not be exceeded between 07.00 and 23.00, in order to prevent people being 'moderately annoyed'. |
| CLIMATE CHANGE, AIR, LAND AND WATER | | |
| Kyoto Protocol on Climate Change | Signing up to the 1997 Kyoto Protocol, 38 Countries (plus the EU) have committed to individual, legally-binding targets to limit or reduce their greenhouse gas emissions. These add up to a total cut in greenhouse-gas emissions of at least 5% from 1990 levels in the commitment period 2008-2012. The UK has committed to an 8% reduction (base year = 1990). | Achieve a reduction in anthropogenic CO2 levels to at least 5% below 1990 levels by 2012. Consider afforestation and reforestation as carbon sinks. |
| The Water | The Directive establishes a framework for the protection of inland surface waters, | Requires all Member States to achieve 'good |

| Document title | Relevant objectives | Relevant targets & indicators |
|---|--|---|
| Framework Directive 2000/60/EC | transitional waters, coastal water and groundwater. It also encourages the sustainable use of water resources. The Water Framework Directive has the following key aims: • Expanding the scope of water protection to all waters, surface waters and groundwater; • Achieving "good status" for all waters by a set deadline; • Water management based on river basins; • "Combined approach" of emission limit values and quality standards; • Getting the prices right; • Getting the citizen involved more closely; and • Streamlining legislation. | ecological status' of inland water bodies by 2015, and limits the quantity of groundwater abstraction to that portion of overall recharge not needed by ecology. |
| European Commission (1996) Air Quality Framework Directive | overall, the improvement of air quality with adequate information obtained on ambient air quality to be provided to the public. | Mandatory limits or reductions for 11 air pollutants including: sulphur dioxide, nitrogen dioxide, particulate matter, lead, ozone, benzene, carbon monoxide, poly-aromatic hydrocarbons, cadmium, arsenic, nickel and mercury. |
| European Commission White Paper on the European Transport Policy (2001) | The principal measures suggested in the White Paper include: • Revitalising the railways; • Improving quality in the road transport sector; • Striking a balance between growth in air; • Transport and the environment; • Turning inter-modality into reality; • Improving road safety; • Adopting a policy on effective charging for transport; • Recognising the rights and obligations of users; • Developing high-quality urban transport; and • Developing medium and long-term environmental objectives for a sustainable transport system. | None |
| CULTURAL AND HISTORIC HERITAGE | | |
| Convention on the Protection of Archaeological Heritage (Revised) (Valetta Convention) | The Convention contains provisions for the identification and protection of archaeological heritage, its integrated conservation, the control of excavations, the use of metal detectors and the prevention of illicit circulation of archaeological objects, and the dissemination of information. It was ratified by the UK in September 2000, and provides for a broad definition of 'archaeological heritage' that includes 'structures, constructions, groups of buildings, developed | |

| Document title | Relevant objectives | Relevant targets & indicators |
|---|--|-------------------------------|
| (United Nations, 2000) | sites, moveable objects, monuments of other kinds as well as their context, whether situated on land or under water. | |
| UNESCO World Heritage Convention – Convention concerning the protection of World Cultural and Natural Heritage (1972, UNESCO). | The consultation responses to the LDF Core Strategy SA Scoping Report indicated that this document should be reviewed as part of that SA process. To reduce duplication, these reviews will be undertaken by the LDF Core Strategy SA team and the details of the reviews added to the Waste SA Report once completed. | |

| Document title | Relevant objectives | Relevant targets & indicators |
|--|---|-------------------------------|
| NATIONAL | | |
| SUSTAINABLE DEVELOPMENT, SPATIAL PLANNING AND ENVIRONMENTAL STRATEGY/POLICIES | | |
| PPS1: Delivering Sustainable Development | The document sets out the key policies and principles of and the Government' vision for planning. Sustainable development is the purpose of planning. Communities need to be actively involved in the planning process, which is not simply regulations and control but must become a proactive management of development. These overarching objectives inform specific objectives such as promotion of urban and rural regeneration, of local economies, of inclusive, healthy and safe communities. | None |
| PPS 12 – Local Development Frameworks (updated June) | Planning Policy Statement 12 (PPS12) sets out the Government's policy on local spatial planning. The main policy changes that have been made to the new PPS12 (compared to the previous PPS12 which introduced the new planning | None |

| Document title | Relevant objectives | Relevant targets & indicators |
|--|---|-------------------------------|
| 2008) | <p>system), are:</p> <ul style="list-style-type: none"> • PPS12 has been streamlined and is now a pure policy document, with guidance to be published separately in the Plan Making Manual. • Local Authorities have been provided with greater flexibility to allocate sites (strategic sites) in the Core Strategy. • Local Authorities have been provided with greater flexibility in determining which DPDs to produce. There has a reduction in complexity and number of DPDs. • The lifespan of Core Strategies has been increased from 10 to 15 years; and • The role of the Core Strategy has been strengthened in relation to infrastructure provision. | |
| Environmental Protection Act (1990) | <p>The Environmental Protection Act 1990 identifies Metropolitan Authorities such as Bradford MBC, as Waste Collection Authorities and Waste Disposal Authorities. It details the responsibilities and duties of such authorities with regard to certain matters including the collection of household refuse, recycling activities and street cleansing as well as the disposal of waste. The provisions and requirements in respect of the payment of 'Recycling Credits' were also introduced in this Act.</p> | None |
| The UK strategy for sustainable development, Securing the Future (2005) | <p>This is a review of the original sustainable development strategy produced in 1999. The five guiding principles are</p> <ul style="list-style-type: none"> • Living within environmental limits; • Ensuring a strong, healthy and just society; • Achieving a sustainable economy; • Promoting good governance; and • Using sound science responsibly. | None |

| Document title | Relevant objectives | Relevant targets & indicators |
|--|--|-------------------------------|
| | Waste generation is a Government headline indicator for sustainable development and there are specific indicators aimed at decreasing the amount of waste being sent to landfill for disposal. | |
| DETR (2000): Government Urban White Paper: Our Towns, Our Cities, the Future. Delivering an urban renaissance | To arrest urban decline by taking a joined approach to policies on housing, planning, transport and education in and for cities and town. | None |
| DETR (2000): Government Rural White Paper: Our Countryside, the future – A deal for rural England | There are five objectives, which will be transposed into the PSA and Service Delivery Agreements: • Facilitate sustainable economies; • Maintain and stimulate communities ensuring fair access to services; • Conserve rural landscape and wildlife; • Increase opportunities to enjoy the countryside; and • Promote collaboration amongst all Government tiers to ensure responsiveness to local communities' requests. | None |
| NATURAL ENVIRONMENT | | |
| PPS9- Biodiversity and Geological Conservation | PPS9 sets out planning policies on protection of biodiversity and geological conservation through the planning system. Objectives include: <ul style="list-style-type: none"> • To promote sustainable development by ensuring that biological and geological diversity are conserved and enhanced as an integral part of social, environmental and economic development; • To conserve, enhance and restore the diversity of England's wildlife and geology by sustaining, and where possible improving, the quality and extent of natural habitat and geological and geomorphological sites; the natural physical processes on which they depend; and the populations of naturally occurring species which they support and to contribute to rural renewal and | None |

| Document title | Relevant objectives | Relevant targets & indicators |
|---|---|-------------------------------|
| | urban renaissance. | |
| PPG 2 – Green Belts | There should be a general presumption against inappropriate development in the Green Belt. When any large scale development or redevelopment occurs within the Green Belt (which includes tipping of waste), it should contribute towards the objectives provided in paragraph 1.6 of the guidance note. | None |
| Wildlife and Countryside Act 1981 (as amended) | The Act is concerned with the protection of wildlife and their habitat (countryside, national parks and designated protected areas). It addresses the problem of species protection and habitat loss by setting out the protection that is afforded to wild animals and plants in Britain. | None |
| UK Biodiversity Action Plan | The UK BAP was published in response to the requirements of the Convention on Biological Diversity (1992). It highlights a number of priority habitats and species with associated action plans. | None |
| ‘Working with the Grain of Nature’: A Biodiversity Strategy for England (2002) | The Strategy seeks to ensure biodiversity considerations become embedded in all main sectors of public policy and sets out a programme for the next five years to make the changes necessary to conserve, enhance and work with the grain of nature and ecosystems rather than against them. Ensures biodiversity considerations are embedded in all main sectors of economic activity. (It is the principal means by which the government will comply with duties under section 74 of the CROW Act). | None |
| Countryside and Rights of Way Act 2000 (CROW) | CROW extends the public's ability to enjoy the countryside whilst also providing safeguards for landowners and occupiers. It creates a new statutory right of access to open country and registered common land, modernise the rights of way system, give greater protection to Sites of Special Scientific Interest (SSSIs), provide better management arrangements for Areas of Outstanding Natural Beauty (AONBs), and strengthen wildlife enforcement legislation. Emphasises the public's right of access to open country and common land, and gives additional protection to Sites of Special Scientific Interest (SSSI). The Act imposes a duty on public bodies, including WCC to have regard to the conservation and | None |

| Document title | Relevant objectives | Relevant targets & indicators |
|--|---|-------------------------------|
| | enhancement of the AONBs in the County. | |
| SOCIAL AND COMMUNITY ISSUES | | |
| PPS3– Housing | <p>PPS3 provides guidance on planning for the provision of new housing on a regional basis and on the allocation of land for housing by local authorities. Planning for housing policy objectives are:</p> <ul style="list-style-type: none"> • High quality housing that is well-designed and built to a high standard. • A mix of housing, both market and affordable, particularly in terms of tenure and price, to support a wide variety of households in all areas, both urban and rural. • A sufficient quantity of housing taking into account need and demand and seeking to improve choice. • Housing developments in suitable locations, which offer a good range of community facilities and with good access to jobs, key services and infrastructure. • A flexible, responsive supply of land – managed in a way that makes efficient and effective use of land, including re-use of previously-developed land, where appropriate. | None |
| PPS 7 – Sustainable Development in Rural Areas | Quality of life and the environment in rural areas need to be enhanced through the sustainable development of communities and their environment. | None |
| PPG 17 – Planning for Open Space, Sport, and Recreation | This document comprises the planning guidance to support outdoor and recreational activities which contribute to the delivery of broader sustainable development objectives such as the support of urban renaissance and rural renewal, the promotion of social inclusion and community cohesion, health and well being. The recreational quality of open spaces can be eroded by insensitive | None |

| Document title | Relevant objectives | Relevant targets & indicators |
|--|--|-------------------------------|
| | <p>development or incremental loss. In considering planning applications - either within or adjoining open space - local authorities should weigh any benefits being offered to the community against the loss of open space that will occur. Accessibility should be promoted by sustainable modes of transport (including disabled facilities).</p> | |
| PPG 21 – Tourism | <p>This PPG outlines the economic significance of tourism and its environmental impact, and therefore its importance in land-use planning. It explains how the needs of tourism should be dealt with in development plans and in development control. Local Authorities should ensure land use is distributed and managed in such a way that it supports the qualities that underpin the tourism industry.</p> | None |
| PPG 24 – Planning and Noise | <p>Noise-sensitive developments should be located away from existing sources of significant noise (or programmed development such as new roads) and that potentially noisy developments are located in areas where noise will not be such an important consideration or where its impact can be minimised. Guidance on noise from landfill disposal sites is included in the guidance.</p> | None |
| CLIMATE CHANGE, AIR, LAND AND WATER | | |

| Document title | Relevant objectives | Relevant targets & indicators |
|---|---|-------------------------------|
| <p>Planning Policy Statement: Planning and Climate Change Supplement to Planning Policy Statement 1 (DCLG, 2006)</p> | <p>Regional planning bodies and all planning authorities should prepare and deliver spatial strategies that:</p> <ul style="list-style-type: none"> • Make a full contribution to delivering the Government’s Climate Change Programme and energy policies, and in doing so contribute to global sustainability; • In providing for the homes, jobs, services and infrastructure needed by communities, and in renewing and shaping the places where they live and work, secure the highest viable resource and energy efficiency and reduction in emissions; • Deliver patterns of urban growth and sustainable rural developments that help secure the fullest possible use of sustainable transport for moving freight, public transport, cycling and walking; and, which overall, reduce the need to travel, especially by car; • Secure new development and shape places that minimise vulnerability, and provide resilience, to climate change; and in ways that are consistent with social cohesion and inclusion; • Conserve and enhance biodiversity, recognising that the distribution of habitats and species will be affected by climate change; • Reflect the development needs and interests of communities and enable them to contribute effectively to tackling climate change; and • Respond to the concerns of business and encourage competitiveness and technological innovation in mitigating and adapting to climate change. | <p>None</p> |
| <p>The Stern Report – The Economics of Climate Change</p> | <p>Although not formal policy the Stern report is the clearest measurement of the social and financial implications of global warming. The report states that:</p> <ul style="list-style-type: none"> • Global Warming will cost the world up to £3.68 trillion unless it is tackled | <p>None</p> |

| Document title | Relevant objectives | Relevant targets & indicators |
|--|--|--|
| | <p>within a decade;</p> <ul style="list-style-type: none"> • Unchecked climate change would turn 200 million people into refugees, the largest migration in modern history, as their homes succumbed to drought or flood; • The world needs to spend 1 per cent of global GDP - equivalent to about £184bn – dealing with climate change now, or face a bill between five and 20 times higher for damage caused by letting it continue. | |
| PPS 22 Renewable Energy | <p>Regional spatial strategies and local development documents should contain policies designed to promote and encourage, rather than restrict, the development of renewable energy resources. Except where these developments are likely to have an adverse effect on designated conservation sites (historic and natural), or designated landscapes.</p> <p>Policies in the statement cover technologies including biomass, energy from waste (but not energy from mass incineration of domestic waste), and landfill.</p> | <p>Targets should be set for achievement by 2010 and by 2020. Regional targets have been set and these have been expressed for each strategic planning authority in the RSS.</p> |
| PPS 23 – Planning and Pollution Control | <p>A strategic approach should be taken to the location of potentially polluting developments and the location of sensitive developments. Development presents the opportunity of remediation and developing on contaminated land in order to reduce the risks currently posed by such land. Where new potentially polluting activities are planned a proactive approach should be taken between the developer and the pollution control authorities. The application of waste management controls to waste associated with land contamination make it particularly important to establish what statutory environmental protection controls may apply.</p> | <p>None</p> |

| Document title | Relevant objectives | Relevant targets & indicators |
|--|--|--|
| <p>PPS25 – Development and Flood Risk</p> | <p>PPS25 sets out Government policy on development and flood risk. It aims to ensure that flood risk is taken into account at all stages in the planning process; to avoid inappropriate development in areas at risk of flooding, and to direct development away from areas of highest risk. A sequential risk-based approach to determining the suitability of land for development in flood risk areas is central to the policy statement and should be applied at all levels of the planning process. Planning applications for development proposals of 1 ha or greater in Flood Zone 1 and all proposals for new development located in Flood Zones 2 and 3, should be accompanied by a Flood Risk Assessment.”</p> <p>Reducing Risk:</p> <ul style="list-style-type: none"> • Safeguarding land from development that is required for current and future flood management e.g. conveyance and storage of flood water, and flood defences; • Reducing flood risk to and from new development through location, layout and design, incorporating sustainable drainage systems (SUDS); • Using opportunities offered by new development to reduce the causes and impacts of flooding – e.g. surface water management plans; making the most of the benefits of green infrastructure for flood storage, conveyance and SUDS; re-creating functional floodplain; and setting back defences. | <p>None</p> |
| <p>PPG 13 – Transport</p> | <p>The objectives of this guidance are to integrate planning and transport at the national, regional, strategic and local level to promote more sustainable transport choices for both people and for moving freight, so to enhance accessibility by public transport and reduce the need to travel.</p> | <p>None</p> |
| <p>PPG14 – Development of Unstable Land</p> | <p>PPG14 examines the impacts of instability on development and land use. How instability should be tackled in the planning process and how it might be treated by development plans and in considering planning applications is also included.</p> | <p>None</p> |
| <p>Air Quality</p> | <p>This Strategy describes the plans drawn up by the Government and the devolved</p> | <p>Defra has published a new volume to the Air</p> |

| Document title | Relevant objectives | Relevant targets & indicators |
|--|--|---|
| Strategy: Working Together for Clean Air | administrations to improve and protect ambient air quality in the UK in the medium-term, so to protect people's health and the environment without imposing unacceptable economic or social costs. This document sets objectives for eight main air pollutants to protect health. | Quality Strategy - <i>A consultation document on options for further improvements in air quality.</i> <i>The implications for targets are:</i> This strategy recommends the retention of the objectives listed in the Air Quality Directive and original UK strategy. |
| Our Energy Future – Creating a Low Carbon Economy | The White paper defines a long-term strategic vision for energy policy combining our environmental, security of supply, competitiveness and social goals. The aim is to stimulate new, more efficient sources of power generation, and cut emissions from the transport and agricultural sector. The document states that biomass and waste technologies to generate energy need to be implemented. | None |
| Climate Change: The UK Programme | The UK's programme is a significant contribution to the global response to climate change. It sets out a strategic, far reaching package of policies and measures across all sectors of the economy, to achieve the targets set. | Cut UK Carbon Dioxide emissions by 60% by 2050. |
| CULTURAL AND HISTORIC HERITAGE | | |
| PPG 15 – Planning and the Historic Environment | This PPG provides a full statement of Government policies for the identification and protection of historic buildings, conservation areas, and other elements of the historic environment. It explains the role played by the planning system in their protection. It complements the guidance on archaeology and planning given in PPG 16. Objectives are for effective protection for all aspects of the historic environment. | None |
| PPG 16 – Archaeology and Planning | This guidance sets out the Secretary of State's policy on archaeological remains on land, and how they should be preserved or recorded both in an urban setting and in the countryside. It gives advice on the handling of archaeological remains and discoveries under the development plan and control systems, including the weight to be given to them in planning decisions and the use of planning | None |

| Document title | Relevant objectives | Relevant targets & indicators |
|--|---|---|
| | conditions. Development plans should reconcile the need for development with the interests of conservation including archaeology. Detailed development plans should include policies for the protection, enhancement and preservation of sites of archaeological interest and of their settings. | |
| Protecting our Historic Environment: Making the System Work Better (DCMS, 2003) | This consultation document sets out some possible changes to improve the way the historic environment is protected. The review identifies which areas of the current system require change and invites comments from stakeholders and the public on how these changes could be achieved. The Government is considering the issue of guidance to make clear what plans district authorities will be expected to develop for the protection and enhancement of the historic environment as part of their LDF and sustainability planning. | <p>The review has identified four areas in the current system which require improvement:</p> <ul style="list-style-type: none"> • The need to simplify existing protection systems; • Improve transparency and openness in the designation of sites/buildings for protection; • To create more flexible regimes for managing the historic environment; and • To develop a system that is robust enough to preserve the best sites/buildings, whilst continuing to take on board changes in what people value. |
| The Historic Environment: A Force for Our Future | This statement sets out the intention of the Government to protect the historic environment recognising its major contribution to the economy in rural and deprived communities as well as in traditional economic centres. It also states the need for the development of new policies to further realise economic and educational potential. The historic environment should be protected and sustained for the benefit of our own and future generations. | None |

| Document title | Relevant objectives | Relevant targets & indicators |
|-----------------|---------------------|-------------------------------|
| REGIONAL | | |

| Document title | Relevant objectives | Relevant targets & indicators |
|---|---|-------------------------------|
| Yorkshire & Humber Regional Sustainable Development Framework (RSDF). Update 2003-05. Building the benefits. | The RSDF helps to ensure that sustainable development is an integral part of policy and decision-making at regional, sub-regional and local levels throughout Yorkshire and Humber. The RSDF sets out 15 aims for sustainable development, which can be integrated with other regional and local strategies. An appraisal tool has been developed based on the 15 aims of the RSDF to ensure that sustainability is embedded within all strategies and action plans. The aims of the RSDF include prudent and efficient use of energy and natural resources with minimal production of waste. | None |
| Regional Economic Strategy | The consultation responses to the LDF Core Strategy SA Scoping Report indicated that these documents should be reviewed as part of that SA process. To reduce duplication, these reviews will be undertaken by the LDF Core Strategy SA team and the details of the reviews added to the Waste SA Report once completed. | |
| Regional Sustainable Development Framework | | |
| Regional Environmental Enhancement Strategy | | |
| Regional Cultural Strategy | | |
| Regional Tourism Strategy | | |

The above list of legislative and strategic documents provides a background to the general framework within which this Waste Local Development Document is being produced. The list is not exhaustive.

APPENDIX 3: Information on Waste Technologies

Introduction

This appendix on waste management technologies has been produced to inform the sustainability appraisal of the Bradford Waste Development Plan Document carried out by ENVIRON. It has been produced using the latest available information on the full range of sustainability effects of the most common waste management technologies. A full reference list is provided at the end of the report. Much of the information in this report is taken from the Defra Waste Technology website <http://www.waste-technology.co.uk>.

The purpose of the briefing paper is to provide an evidence base on the sustainability effects of different technologies for staff to use when carrying out the sustainability appraisals of the Waste DPD. The information can be used to assist in the collection of baseline data, the selection of SA criteria and the assessment of the sustainability effects of policies, options and sites presented within plans. The structure of this report is as follows:

- Section 2 sets out a summary of the main types of waste management technology included in the report.
- Section 3 outlines the main sustainability effects of each technology

Waste Management Technologies and their Requirements

Managing municipal waste, industrial waste and commercial waste has traditionally consisted of collection, followed by disposal. Depending upon the type of waste and the area, a level of processing may follow collection. The purpose of this processing may be to reduce the hazard of the waste, recover material for recycling, produce energy from the waste, or reduce it in volume for more efficient disposal.

Methods of waste disposal vary widely, and the chosen method is often based on spatial, financial and technological constraints. For example, in Australia, the most common method of disposal of solid waste is in landfill sites, as it is a large country with a low-density population. By contrast, in Japan it is more common for waste to be incinerated, because the country is smaller and land is, therefore, more valuable.

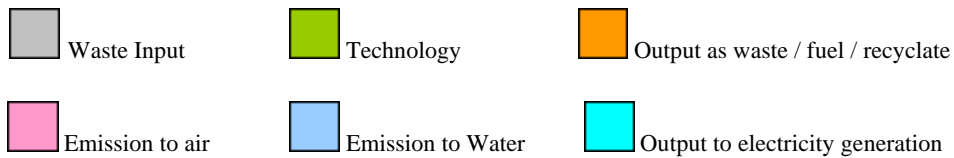
This section provides a summary of the waste management technologies available and their typical requirements. The following types of facilities have been considered:

- Civic amenity sites and waste transfer stations;
- Mechanical – Biological treatment and the facilities required for this;
- Clean and Dirty Material Reclamation Facilities (or Material Recycling Facilities);
- Energy from waste incineration;
- Anaerobic digestion;
- Composting;
- Pyrolysis and gasification;

- Production of refuse derived fuels; and
- Landfill.

Schematic diagrams have been included, to illustrate the primary Inputs and Outputs associated with the different waste management technologies (Source: <http://www.waste-technology.co.uk>).

Key to the schematic diagrams



Civic Amenity sites and Waste Transfer Stations

Waste Disposal Authorities have a duty to provide facilities where the public can deposit large or bulky items of household waste. Civic amenity sites generally provide a range of recycling facilities as well as providing a place to deposit waste to await transfer to a suitable waste management facility. The minimum size of a civic amenity site is roughly half a hectare.

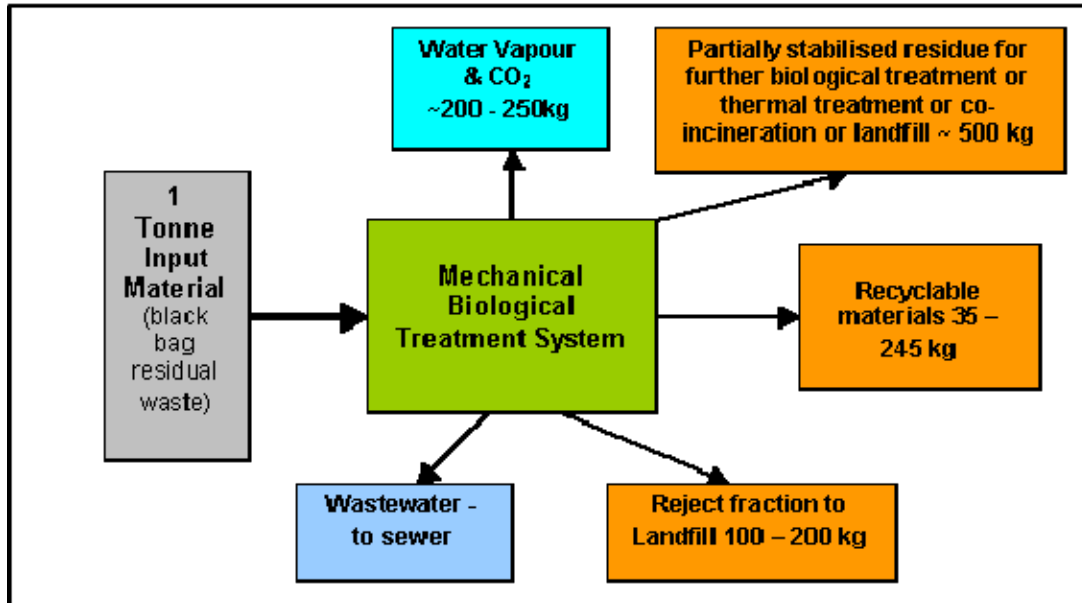
Transfer stations enable the bulking up of different waste streams to allow for onward movement to a suitable waste management facility. Some transfer stations provide some waste sorting (i.e. the separation of recyclable / inert waste).

Mechanical – Biological Treatment

Mechanical Biological Treatment is a generic term for an integration of several processes commonly found in other waste management processes such as Materials Recovery Facilities, sorting and composting plants. At the end of 2006 about half a dozen MBT facilities were under construction in the UK (Source: <http://www.waste-technology.co.uk>).

The principle of the MBT plant is to stabilise and separate the residual waste stream into less harmful and / or more beneficial output streams and there are a wide variety of systems promoted to the UK municipal waste management market to do this. MBT Plants normally incorporate a number of different process technologies. The processes are designed to handle raw 'black bag' municipal waste (after any source segregated recycling and composting has taken place) and tend to involve a recycle recovery element (typically metals and glass) and drying / partial composting of the remaining waste to produce a more stabilised residue. Shown below is a schematic diagram showing the inputs and outputs of this process and a table showing some key facts.

Schematic diagram showing the Inputs and Outputs of a typical Mechanical Biological Treatment (MBT) process



| Technology: Mechanical Biological Treatment (MBT) | |
|---|--|
| Typical capacity | 25,000 to 200,000 tpa (usually multiple modular units are used on larger sites) |
| Land requirements | 0.9 to 2Ha for small facility (25,000 to 60,000tpa), 3-4Ha for large facility (~180,000tpa) |
| Staffing requirements | Staffing levels, including technical competence training, management and administrative resources will vary depending on the size and technology adopted |
| Waste stream treated and nature of residual waste | The processes are designed to handle raw 'black bag' municipal waste (after any source segregated recycling and composting has taken place) and tend to involve a recyclate recovery element (typically metals and glass) and drying / partial composting of the remaining waste to produce a more stabilised residue. |

Autoclaving

Autoclaving is a pretreatment mechanical heat treatment technology which normally comprises the first stage of an MBT system. Autoclave technology is a well established technology in the small scale which has been used to sterilise certain hospital type wastes (clinical waste) for many years and is essentially a steam treatment process. Some processes include mechanical action during the treatment to break open bags and break down the organic portion of the waste into into a fibrous material.

When this process is used to pretreat Municipal Solid waste the Waste (MSW) may also be shredded first. The MSW is processed in a pressurised sealed drum under the action of steam. After around an hour of processing the waste is reduced to a 'flock' like material, with metals and glass partially cleaned for extraction as recyclables

The remaining material may be sorted and the highly calorific fraction thermally treated as a type of Refuse Derived Fuel (RDF). There will typically be a residue for disposal from mixed MSW processing after Autoclaving, and as for other processes this will be sent to landfill. An example of Autoclaving Technology in the ESTECH Plant which is still in negotiation (Autumn 2006) for Hereford's waste.

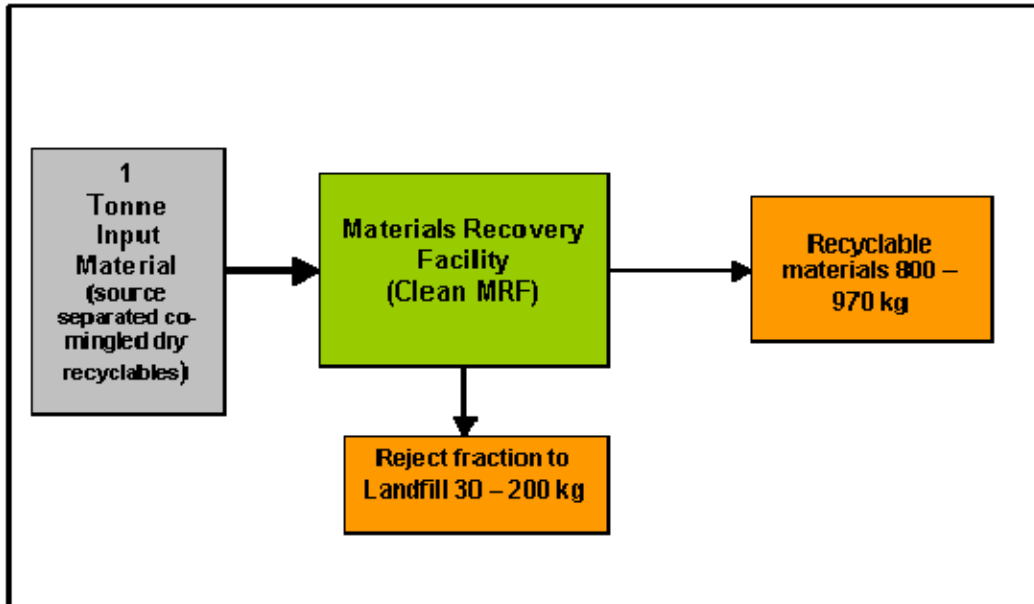
Material reclamation facilities

Material reclamation facilities allow for the reclamation, sorting, storage and transfer of mixed waste streams. MRFs can either receive unsorted materials (i.e. as it would come out of someone's bin) in which case it is called a dirty MRF. Clean MRFs are those that receive material that has been pre-sorted (i.e. separate recycled materials collected from households). Dirty MRFs include facilities that allow for the manual and/or machine separation of waste. There has been a steady increase in the numbers of Materials Reclamation (or Recycling) Facilities (both 'clean' and 'dirty') in the UK as more separate recycle collections have been introduced and overall recycling tonnages have increased.

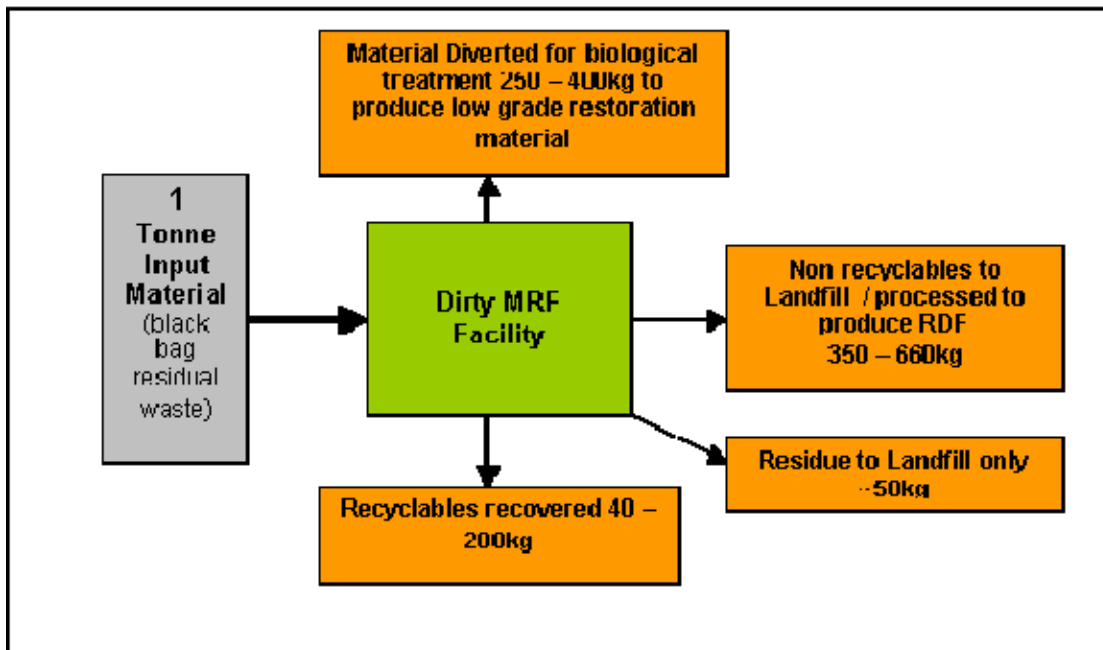
The area required by a MRF varies depending on the facility and buildings required. Facilities should include industrial buildings capable of sorting, storing and transferring waste. MRFs may be high and low technology facilities, depending on the sophistication of plant and equipment employed and the numbers of staff working in the operation of the process. Dirty MRFs will typically comprise a significant element of hand-sorting of materials in addition to the automatic extraction of materials as part of the separation process.

There will always be a minor rejection element of contrary materials passing through both clean and dirty plants, which cannot be easily recycled and therefore will typically go to landfill. Shown below is a schematic diagram showing the inputs and outputs of these processes and a table showing some key facts.

Schematic of Inputs and Outputs of a typical Clean MRF process



Schematic of Inputs and Outputs of a typical Dirty MRF Process



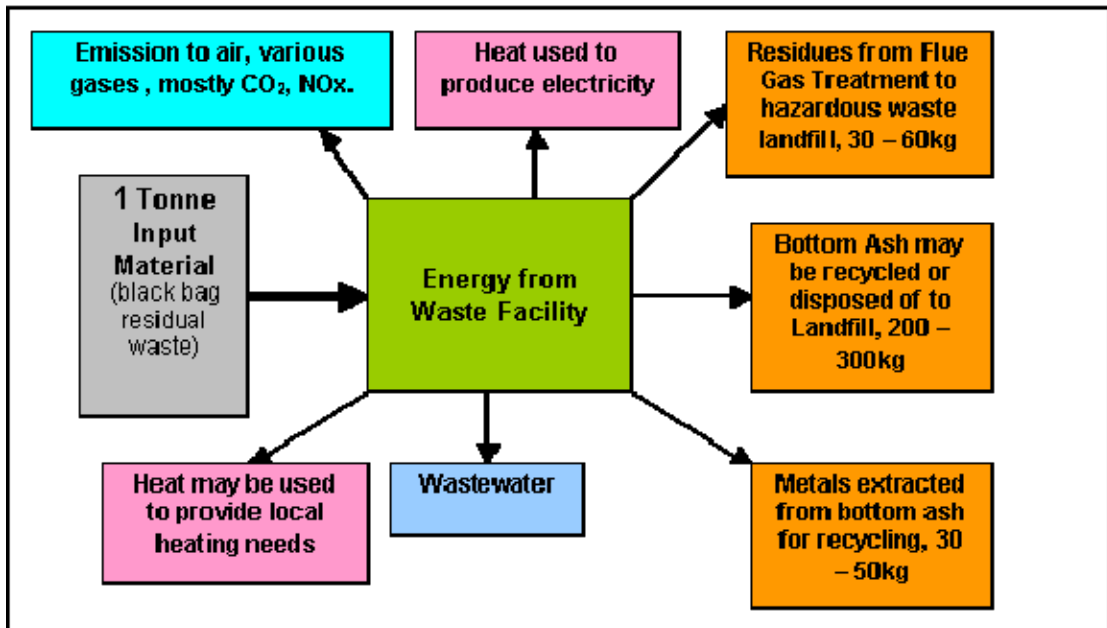
* RDF=Refuse Derived Fuel

| Technology | Clean MRF | Dirty MRF |
|---|--|--|
| Typical capacity | 3,000 – 100,000 tonnes tpa | 100,000 – 200,000 tpa |
| Land requirements | 0.8 – 2 ha | 2 – 4 ha |
| Staffing requirements | Varies greatly depending on the size and the technology of facility, anything from 15 to 85 staff. | Staffing levels, including technical competence, management and administrative resources will vary depending on the size and technology adopted. A 100ktpa plant had 24 staff. |
| Waste stream treated and nature of residual waste | Source separated, co-mingled, dry recyclables. | Black Bag residual, unsorted waste. |

Energy from waste / incineration

Incineration or energy from waste involves combustion of a generally mixed waste stream in order to reduce the bulk of the waste and recover heat. There are two main methods used to burn waste: Mass Burn and Fluidised Bed technology. Fluidised bed technology is a simple modification to mass burn which involves the waste being suspended by an updraft supply of air and kept 'fluidised' on a base of small inert particles such as sand. The combustion of waste using fluidised bed technology involves pre-sorting the waste materials to remove heavy and inert objects and non-ferrous metals prior to processing (mass burn incineration does not require pre-treatment of waste). Incinerators generally need to be large to be efficient and economically viable. Plant capacities are regarded as small scale (~150,000 tpa or less), medium scale (~150 - 250,000 tpa) or large scale (> 250,000 tpa) based on available throughputs. Shown below is a schematic diagram showing the inputs and outputs of this process and a table showing some key facts.

Schematic of Inputs and Outputs of a typical Energy from Waste facility process



| Technology: Energy from Waste Facility | |
|---|---|
| Typical capacity | 60,000 tpa - 600,000 tpa (although typically 100,000 – 250,000tpa) |
| Land requirements | Typically 2.5 to 3.5 Ha |
| Staffing requirements | Staffing levels, including technical competence, management and administrative resources will be required and will vary depending on the size of the facility. An estimated 30-55 persons are required to operate medium sized facilities of around 200,000 - 450,000 tpa. |
| Waste stream treated and nature of residual waste | The majority of incinerators currently operating in the UK are moving grate energy from waste plants designed to handle large volumes of household wastes with no pre-treatment. Some of the residues from stack emission control process are classified as hazardous waste and may be difficult to dispose of. |

Composting

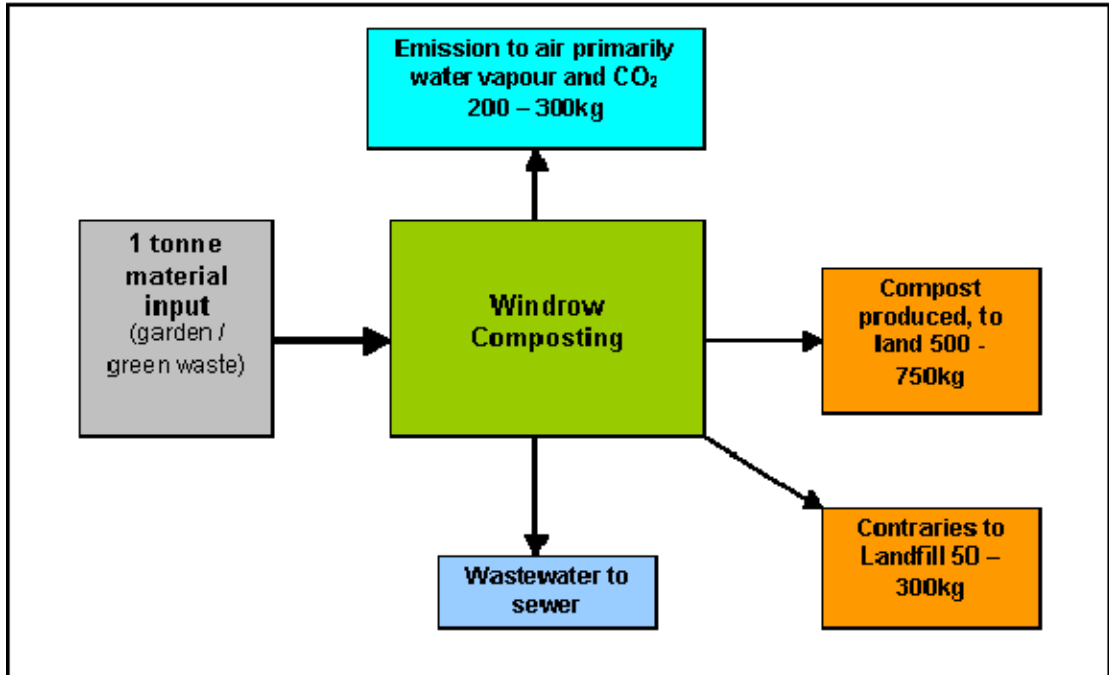
Composting is a treatment process for the organic component of waste which involves the breakdown in air of waste by micro-organisms under thermophilic conditions (at or above 70c). Waste treated varies from green waste only (typical with simple windrow composting) to cardboard, food waste and sewage sludge (processed by in-vessel composting). There are two categories of composting:

- Windrow: when waste is left in long piles which is mechanically watered and turned to allow air into the compost and to allow heat to escape. Alternatively, air may be fed into the material from pipes underneath the waste. Windrow composting may take place in an industrial building or in the open;

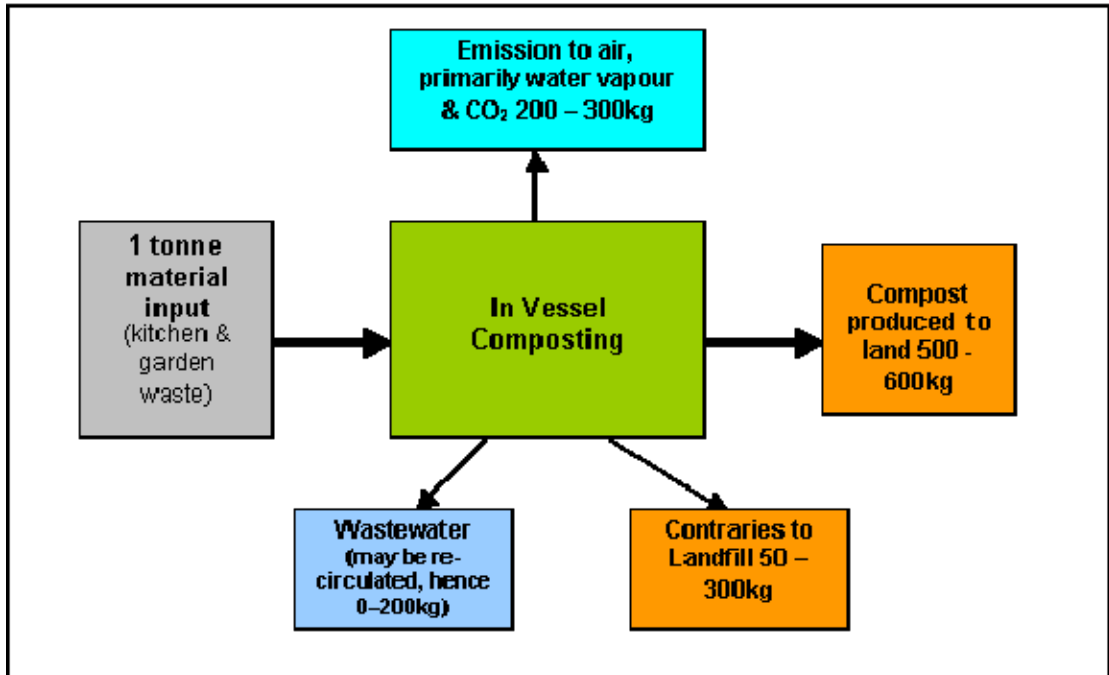
- In vessel: waste is composted in drums or digester bins and is mechanically fed water and air.

Shown below is a schematic diagram showing the inputs and outputs of these processes and a table showing some key facts.

Schematic of Inputs and Outputs of a typical Windrow Composting process



Schematic of Inputs and Outputs of a typical In-Vessel Composting process



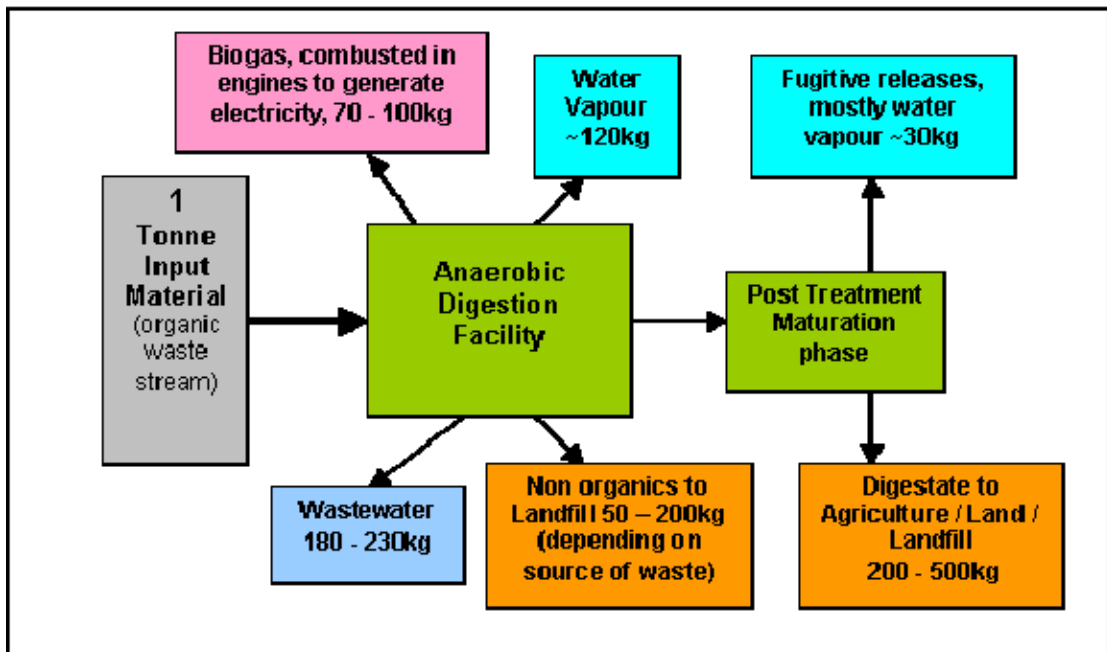
| | Windrow Composting | In-Vessel Composting |
|--|--|--|
| Typical capacity | 50,000 tpa (range 2,000 to 100,000 tpa) | 50,000 tpa (range 2,000 to 200,000 tpa) |
| Land requirements | Approximately 2.5 to 5 Ha for 50,000 tpa, windrow management and additional space for curing and stockpiling | Less required for In-vessel composting than windrow systems, the larger scale (200,000tpa) may require 5 – 6Ha |
| Staffing requirements | Staffing levels, including technical competence, management and administrative resources will vary depending on the size and the technology adopted. | Staffing levels, including technical competence, management and administrative resources will vary depending on the size and the technology adopted. |
| Waste stream treated and nature of residual waste | Garden / Green Waste | Kitchen or garden derived ‘Green’ wastes. |

Anaerobic digestion

This is a biological process where organic waste is treated in vessels by micro-organisms in the absence of oxygen. The gaseous by products are captured and used as an energy source. Pre-treatment is necessary to improve the ability of the micro-organisms to digest the waste and to ensure that the end product is safe for use as a fertilizer. The throughput of

anaerobic digestion plants varies from about 500 – 60,000 tonnes per annum. Gas produced can be in the excess of 100m³ per tonne of sorted waste. Residues are soil improvers or can be spread to land if liquid. Shown below is a schematic diagram showing the inputs and outputs of this process and a table showing some key facts.

Schematic of Inputs and Outputs of a typical Anaerobic Digestion process



| Technology: Anaerobic Digestion | |
|---|---|
| Typical capacity | 5,000 tpa - 60,000 tpa (modular facilities, larger capacity can be achieved by a number of digesters on one site) |
| Land requirements | Less than for aerobic composting and waste-to-energy plants, depends on the process adopted. Estimated requirement is 1m ² per tonne, depending on technology employed. |
| Staffing requirements | Staffing levels, including technical competence, management and administrative resources will vary depending on the size of facility. |
| Waste stream treated and nature of residual waste | Organic biodegradable wastes. Mechanical processing and separation of MSW is essential for most AD systems and the non-biodegradable materials should be removed prior to processing. |

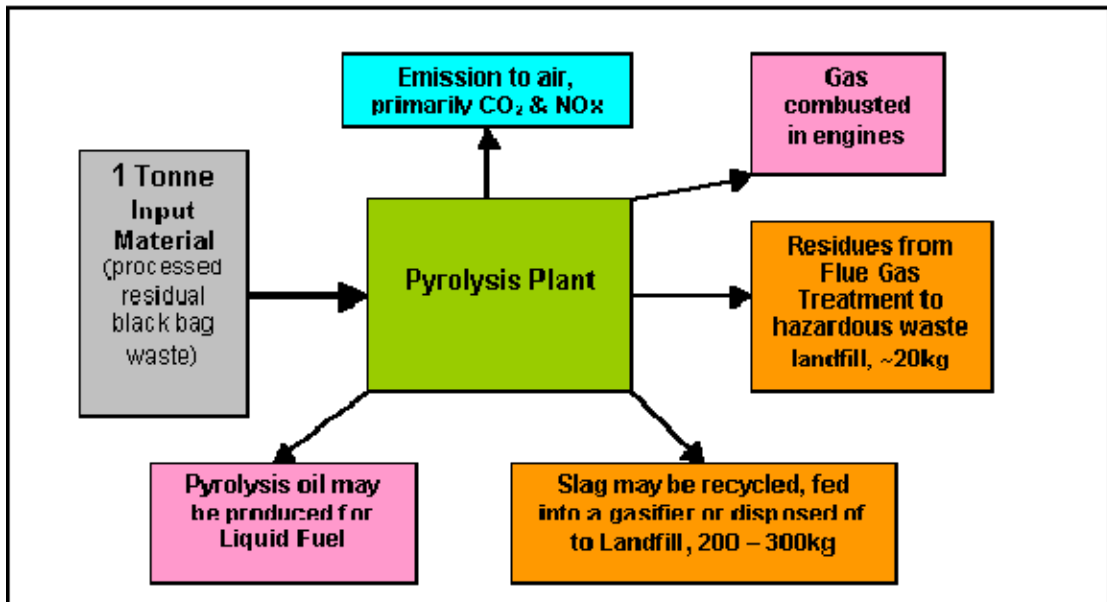
Pyrolysis and gasification

There are a wide variety of thermal treatment systems incorporating 'advanced' or 'emerging' technologies for the treatment of municipal wastes. The most prevalent are pyrolysis and gasification processes.

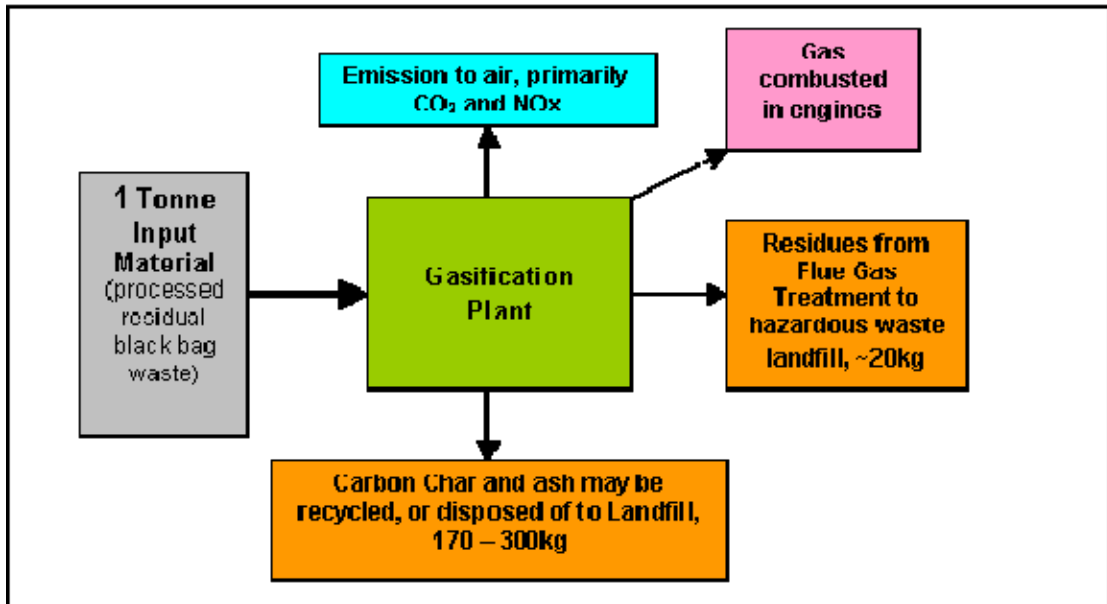
Pyrolysis, often incorporating gasification, is a thermal process where organic materials in the waste are broken down under pressure and in the absence of oxygen. The process works best when the input waste is carbon-rich, preferably sorted or pre-sorted. Best results are obtained from single stream wastes such as sewage sludge, plastics, wood, tyres, or agricultural wastes. Where MSW is to be used it should be pre-sorted to remove the majority of the non-organics and processed to homogenise the feedstock.

Gasification usually operates at a higher temperature range to pyrolysis, with the addition of an oxidant (either air or oxygen) and the output from a pyrolysis plant may be fed into this process. Gasification of organic derived wastes will produce a gas which can be combusted to generate electricity and a char which usually requires disposal if no markets are available. Shown below is a schematic diagram showing the inputs and outputs of these processes and a table showing some key facts.

Schematic of Inputs and Outputs of a typical Pyrolysis process



Schematic of Inputs and Outputs of a typical Gasification process



| Technology: Pyrolysis and Gasification | |
|---|---|
| Typical capacity | Typically 20,000 tpa – 100,000 tpa (tend to be modular, so larger capacities may be achieved through multiples of facilities on one or more sites). One plant is however 225,000 tpa in Karlsruhe, Germany. |
| Land requirements | Typically 0.5 – 1.75Ha for a 50,000 – 60,000tpa sized plant. 6Ha for 225,000t facility in Germany. |
| Staffing requirements | Staffing levels, including technical competence, management and administrative resources will required and will vary depending on the size of the facility. Typically 30 – 40 employees for plants of 60,000 – 200,000 tpa. |
| Waste stream treated and nature of residual waste | Processed residual black-bag waste. |

Production of Refuse derived fuels

The production of Refuse Derived Fuels involves the mechanical processing of household waste using screens, shredders and separators to recover recyclable materials and to produce a combustible product. Systems involve the removal of inert and compostable materials followed by pulverisation to produce a feedstock which can be incinerated in power stations, pyrolysis and gasification systems or co-incinerated (see previous) in other industrial combustion processes.

Although RDF plants have been commercially proven in the UK, many of the plants have either closed or are due to be phased out. However a recent new development incorporating

RDF is the Neath Port Talbot integrated waste management development. There has been a resurgence of interest in this technology due to the Landfill Diversion targets of the EC Landfill Directive and the enhanced interest in residual waste treatment technologies such as MBT, which may be configured to produce RDF.

The Byker plant in Newcastle Upon Tyne was designed to process MSW at a rate of 1,700 tonnes per week and comprised the following components:

- Primary pulveriser;
- Rotary screen;
- Air classifier;
- Secondary shredder; and
- Pelletiser for RDF.

Other examples of Refuse Derived Fuel Plants have been operating until recently in Slough, Berkshire, England and at Pebsham, near Hastings, East Sussex, England.

Landfill

Landfill comprises the tipping of waste materials to land either to fill a void or to raise the land surface. Under current regulations such sites will be engineered to control leachate and landfill gases. Although there are regulations that restrict what waste can be disposed of to landfill most wastes can be physically be disposed of into a landfill.

Although the engineering of a modern landfill site is fairly complex, it is still essentially the most basic method of disposal. Unlike other waste disposal options the volume of reduction in a landfill is uncontrolled and is often dependant upon the type of waste placed into the site itself. Landfill sites produce liquid leachate and gas, both of which have to be captured and controlled.

Landfilling practices in the UK have had to change in recent years to meet the challenges of the European Landfill Directive. The UK now imposes landfill tax upon biodegradable waste which is landfilled. In addition to this the Landfill Allowance Trading Scheme has been established for local authorities to trade landfill quotas.

Sustainability Impacts of Waste Technologies

This section provides a review of the sustainability of waste management technologies, by means of identifying the typical advantages and disadvantages associated with the various waste management facilities and waste disposal options.

Particular consideration is given to the environmental impacts, of the different technologies, although the social and financial impacts are also discussed. Furthermore, the associated impacts considered include both direct impacts (impacts from treatment of the waste itself) and indirect impacts, such as the transport of the waste.

Recycling & Material Recycling Facilities

Advantages

- Recycling can significantly reduce the amount of material which has to be disposed of as waste and therefore reduce the negative impacts associated with waste disposal activities, typically landfilling or incineration;
- Recycling reduces the consumption of finite natural resources and the effects associated with the winning of raw materials, such as forestry and mining. Furthermore, it reduces transport costs and pollution from transporting raw materials and manufacturing new products; and
- There are economic and social benefits due to potential revenue from sale of recycled materials and provision of work opportunities for disadvantaged sectors of the community.

Disadvantages

- Energy consumption can be relatively high and care should be taken not to negate any net environmental benefit by transporting materials long distances to recycling facilities. Typically the recycled materials do not lend themselves to rail transport;
- Sites may be located close to urban areas (i.e. close to where the waste is generated). However, conflicts may arise between traffic generated by recycling activities and the rest of the community;
- Outputs from the plant will still be classified as BMW (biodegradable municipal waste) under the Landfill Directive and active waste under Landfill Tax; and
- When concentrating very high volumes of materials such as demolition waste, paper textiles and plastics at recycling centres, care must also be taken to control dust emissions, spillages, leachates and litter.

Energy from waste: incineration, autoclaving & Refuse derived fuels

Advantages

- Incineration can handle municipal solid waste with no/little pre-treatment required and reduces the volume of waste by about 90%;
- Bottom ash, produced from the burning process, makes up approximately 30% of the original volume (and 10% of the original weight) of waste fed into the plant. This ash may be used as construction aggregate and to make construction blocks;
- Waste incinerators provide energy in the form of heat and electricity (Combined Heat and Power) and this is proven and commercially available technology;
- The process produces gas that can be burnt as a fuel thus providing recovery of energy;
- Autoclaving eliminates the need for hand sorting of waste seen in most MBT plants. This is replaced by mechanical equipment processing, after autoclaving; and

- Refuse Derived Fuel (RDF) can be co-fired with other fuels in a variety of industrial boilers.

Disadvantages

- When waste is incinerated fly ash is generated. Fly ash (10-25% of total ash) can contain high concentrations of heavy metals and is generally landfilled. It is considered toxic and must be disposed of in special waste sites;
- Processing refuse derived fuels involves high electrical power consumption and maintenance;
- RDFs are in competition with other fuels and RDF can cause more damage to boilers and pipework than other fuels;
- Incineration plants can emit dust and noise. In addition, the height of the chimney stack and its visual impact on the landscape can be of particular concern to local residents;
- There is the potential for emissions to air from incineration plants comprising dioxins, heavy metals, dust particles and acid gases which can aggravate asthma and lung disease;
- Incineration concentrates pollutants and discharges them to the environment through air, water and/or land; and
- Incineration plants have high capital costs. Since fixed capital costs are high the need for consistently high utilisation is paramount. Furthermore, a minimum or guaranteed tonnage may be required by the operator to cover costs. This can make recycling less attractive.
- A disadvantage of autoclaving is the heat and other energy used in pressurisation. Hence, the incorporation of anaerobic digestion into the MBT system with power generation is often proposed to ensure that the necessary heat (often CHP heat) and power for pressurisation is readily available on site.

Composting

Advantages

- There are net environmental benefits when home composting is undertaken, as this reduces transport;
- Composting also helps to reduce use of primary resources. It can also be used as soil conditioner as a substitute for peat;
- It has relatively low set up costs in comparison to other waste management options and allows for various scales of production
- It removes a significant element of the waste stream as a useful material, reducing the volume of the organic waste fraction of MSW by 25-50%; and
- It reduces organic wastes from landfill, which reduces the production of landfill gas and leachate.

Disadvantages

- Effects on amenity of local people may mean location of sites very near to residential areas can be undesirable;
- Sites can be visually intrusive and take up large areas (for industrial scale composting);
- Leachate can form where moisture quantity is high, causing water pollution;
- It can release gaseous emissions (mainly volatile organic compounds) and are sometimes harmful. Furthermore, sites can become odorous and cause litter if not managed properly;
- The process is sensitive to cross contamination by glass and plastics, therefore requires careful source segregation or further post –treatment;
- If compost is landfilled it may still count as BMW and be subject to Landfill Tax; and
- Concerns have been expressed regarding the effect of fungal spores released during the composting process. The Environment Agency requires a buffer of 250m between composting sites and dwellings / work places.

Anaerobic digestion

Advantages

- The process reduces the amount of waste going to landfill. On average, an aerobic digestion plant will reduce the weight of waste by approximately 40-45%. Furthermore, the process reduces organic wastes from landfill which reduces the production of landfill gas and leachates;
- It can help to reduce use of primary resources, especially products such as peat, which it can replace as a soil conditioner/fertiliser;
- Less land is needed for the process than windrow composting; and
- The technology has relatively low capital costs relative to most thermal processes.

Disadvantages

- It produces methane gas which will need to be utilised/treated;
- The residue usually requires composting before it can be sold, resulting in further impacts on the environment (see section 3.2);
- Unless waste is segregated, the resulting residue may be too contaminated to use and have to be landfilled;
- Wastewater from de-watering can contain relatively high levels of metals, dissolved nitrogen and organic material which may cause pollution if left untreated;
- Plant sizes are larger than other similar technologies. Space is required for pre-treatment of the waste and for the composting of the residue;
- There are uncertainties over the economics and practical applications of anaerobic digestion to treat MSW in the UK. Anaerobic digestion technology for various

homogenous waste streams is widely proven in Europe, but there are no full scale plants in operation in the UK on municipal derived wastes; and

- If landfilled, the digestate produced may still count as biodegradable municipal waste and be subject to Landfill Tax.

Pyrolysis & gasification

Advantages

- The process produces gas that can be burnt as a fuel thus providing recovery of energy;
- High temperatures may make the system more flexible for other waste streams such as clinical waste;
- Residue from the gasification/pyrolysis process is an inert solid called char, containing ash, inorganic fixed carbon and inert metals present in the feed. This char may have a residual calorific value and may be used as a further fuel;
- Smaller neighbourhood plants are viable so local community impacts may be less; and
- The plants are capable of being integrated with other processes such as the output from MBT / Refuse Derived Fuel (RDF) production.

Disadvantages

- The processes may suffer from the same negative perception as incineration. There is already some evidence of this overseas, but has yet to be tested in the UK;
- It requires extensive pre-treatment to be able to handle MSW;
- Many processes will still have residues to be disposed of, some of which (from flue gas treatment) will be hazardous in nature;
- May require more hazardous waste landfill sites for bottom ash; and
- Can generate significant amounts of traffic - should be located as near as possible to where waste generated.

Landfill

Advantages

- During and after the working life of a landfill, gas generated by the waste can be drawn off and converted to energy.
- The disposal of wastes in a landraise scheme can allow more effective control over the migration of landfill gas and leachate compared with landfill in, for example, a quarry; and
- Although there are regulations that restrict what waste can be disposed of to landfill most wastes can technically be disposed of into a landfill.

Disadvantages

- Landfill leachate can be hazardous by virtue of the chemicals within it (including dissolved organic chemicals, ammonia and metals) which may contain contaminants to land and water;
- One tonne of biodegradable waste produces between 200 and 400m³ of landfill gas. Landfills released 25% of the UK's methane emissions in 2001, about 2% of our greenhouse gas emissions (in terms of carbon equivalents);
- They can be unpopular because of factors related to incompatibility with the local topography, visual intrusion, noise from vehicles on site and odour from landfill gas. Surface water runoff and flood risk are also likely to raise issues; and
- Landfill sites are typically relatively far away from built up areas because of their land requirements. This means that distances travelled by waste may be large, with associated financial and environmental impacts.

APPENDIX 4: The Proposed Structure and Contents of the SA Report

Structure of report Information to include:-

Table sign-posting the components of the SA Report which make up the Environmental Report for the purposes of the SEA Directive.

1.0 Summary and Outcomes

- 1.1. Non-technical summary
- 1.2. A statement of the likely significant effects of the plan
- 1.3. Statement on the difference the process has made to date
- 1.4. How to comment on the report

2.0 Appraisal Methodology

- 2.1. Approach adopted to the SA
- 2.2. When the SA was carried out
- 2.3. Who carried out the SA
- 2.4. Who was consulted, when and how
- 2.5. Difficulties encountered in compiling information or carrying out the assessment.

3.0 Background

- 3.1. Purpose of the SA and the SA Report
- 3.2. Plan objectives and outline of contents
- 3.3. Compliance with the SEA Directive/Regulations

4.0 Sustainability Objectives, Baseline and Context

- 4.1. Links to other policies, plans and programmes and sustainability objectives and how these have been taken into account
- 4.2. Description of the social, environmental and economic baseline characteristics and the predicted future baseline
- 4.3. Main social, environmental and economic issues and problems identified
- 4.4. Limitations of the information, assumptions made etc.
- 4.5. The SA framework, including objectives, targets and indicators

5.0 Plan Issues and Options

- 5.1. Main strategic options considered and how they were identified
- 5.2. Comparison of the social, environmental and economic effects of the options
- 5.3. How social, environmental and economic issues were considered in choosing the preferred options

5.4. Other options considered, and why these were rejected

5.5. Any proposed mitigation measures

6.0 Plan Policies

6.1. Significant social, environmental and economic effects of the preferred policies

6.2. How social, environmental and economic problems were considered in developing the policies and proposals

6.3. Proposed mitigation measures

6.4. Uncertainties and risks

7.0 Implementation

7.1. Links to other tiers of plans and programmes and the project level (EIA, design guidance etc.)

7.2. Proposals for monitoring

APPENDIX 5: Glossary of Terms

Community Strategy - This is a District wide strategy that is prepared by Bradford Council and the Bradford Vision Partners (this is comprised of public, private, voluntary and community organisations). The strategy contains a vision and action plan for achieving the social, economic and environmental aspirations, needs and priorities of the local community. The document is reviewed and updated annually to monitor progress, identify any problems and take account of changes in circumstances.

Core Strategy – This is a Development Plan Document that provides the strategic planning framework for the District. It sets out the long-term spatial vision for the District, and the strategic objectives and policies to deliver that vision. The strategy contains core policies, a monitoring and an implementation framework. All other Development Plan Documents that form the Local Development Framework must be in conformity with the Core Strategy.

Development Plan Document (DPD) – These are Local Development Documents that are part of the Local Development Framework. They form the statutory development plan for the district (together with the Regional Spatial Strategy) and are subject of an independent examination. They include the following: Core Strategy, Site Allocations, Area Action Plans, and a Proposals Map.

Local Development Document (LDD) – These are the individual documents that make up the Local Development Framework. They comprise of Development Plan Documents, Supplementary Planning Documents and the Statement of Community Involvement.

Local Development Framework (LDF) – This is the portfolio of Local Development Documents, the Annual Monitoring Report and Local Development Scheme that together provide the framework for delivering the spatial planning strategy for the District.

Local Development Scheme (LDS) – This is a three-year rolling work programme setting out the Council's timetable for preparing each Local Development Document. The Scheme is revised annually in light of outcomes from the Annual Monitoring Report and is submitted to the First Secretary of State.

Regional Spatial Strategy (RSS) – A document that is prepared by the Yorkshire and Humber Regional Assembly and approved by the First Secretary of State. A new RSS is currently being prepared with a timeframe to 2021; this will provide a spatial planning framework for the region that will inform the preparation of the LDF.

Replacement Unitary Development Plan (RUDP) – This is the existing development plan for the district, which was adopted in October 2005.

Statement of Community Involvement (SCI) – This sets out the standards that the Council intends to achieve in involving the community and stakeholders in the preparation, alteration and review of all Local Development Documents and development control decisions.

Strategic Environmental Assessment (SEA) - Environmental assessment is a tool for integrating environmental considerations into decision-making by ensuring that significant

environmental effects of the decision are taken into account. SEA is generally used to refer to a particular type of assessment that fulfils the requirements of European Directive (EU Directive 2001/42/EC).

Sustainability Appraisal - Sustainability appraisal can be defined as the process of evaluating the environmental, social and economic effects of a policy, plan or programme, presenting the results in a written report and using the findings in publicly accountable decision-making. The final Guidance on SA produced by the ODPM at the end of last year broadly incorporates the requirements of the SEA Directive into a wider SA process.

Supplementary Planning Document (SPD) – These are Local Development Documents that are part of the Local Development Framework. They provide supplementary guidance to policies and proposals contained in Development Plan Documents, however, they do not form part of the statutory plan, nor are they subject of independent examination.