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Bradford Metropolitan District Council

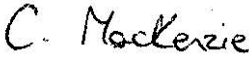

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**BRADFORD WASTE
MANAGEMENT DPD
SUBMISSION VERSION
SUSTAINABILITY APPRAISAL
– NON-TECHNICAL SUMMARY**

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VERSION
SUSTAINABILITY APPRAISAL – NON-TECHNICAL
SUMMARY**

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1. INTRODUCTION

This document is the Non-Technical Summary of the Sustainability Appraisal (SA) Report, incorporating Strategic Environmental Assessment (SEA), for the Bradford Waste Management Development Plan Document (DPD), as required by planning legislation and Government guidance.

SA and SEA are intended to help integrate sustainability considerations into the Waste Management DPD. A SA is undertaken to ensure that the impacts on the environment, and on social and economic issues, are understood. The appraisal is undertaken as an integral part of the plan-making process, helping to inform and guide decisions on policies and sites.

The SA report outlines the significant effects on the environment, social and economic factors of the alternative options of the Bradford Waste Management DPD. It describes the reasons for selecting the alternative options dealt with and the measures envisaged to prevent, reduce and as fully as possible offset any significant effects of implementing the Submission Draft Waste Management DPD.

This Non-Technical Summary provides a summary of the findings of the appraisal of policies throughout the development of the Waste Management DPD and includes the findings of the SA of the Submission Draft Waste Management DPD.

1.1 Bradford Waste Management Development Plan Document

The Bradford Waste Management DPD sets out the Council's spatial strategy for dealing with waste within the District. The plan will be an important tool in ensuring that the District has sufficient and appropriate waste infrastructure to deliver established aspirations for self-sufficiency in waste management over the plan period. The Waste Management DPD:

- Sets out the broad vision and objectives for the future of waste management over the next 10 – 20 years;
- Sets out spatial policies for steering and shaping the development of waste management; ; and
- Sets out the potential locations for new waste management facilities; and
- Takes account of and helps to deliver national and regional policy and the Council's policies in the 2020 Bradford Vision and Community Strategy and the emerging Core Strategy.

The objectives of the Waste Management DPD are as follows:

- Objective 1: To achieve net self-sufficiency, managing our own waste where appropriate, through maximising opportunities for waste reduction and increasing the amounts of waste we re-use, recycle, compost and recover, meeting national and regional targets over the period to 2030, but also working with appropriate waste authorities who may manage Bradford Waste arisings within their District, therefore ensuring the best environmental and sustainable solution to waste management;
- Objective 2: To minimise the amount of residual waste sent on to landfill sites within and outside Bradford District as appropriate and to support the movement of waste up the waste hierarchy;
- Objective 3: To ensure that expansions to existing facilities and new waste facility developments support the planned growth and waste needs of the Bradford community and are delivered in a manner which protects the District's environmental assets and safeguards human health;

- Objective 4: To support the use of waste as a raw material / energy source for local industry and communities both existing and new. Bradford Council supports the production of waste derived fuels where it is not possible to re-use or recycle the waste; and
- Objective 5: To work in collaboration with appropriate local authorities and waste industry operators to ensure that sub-regional waste (and if necessary beyond the sub-region) issues are effectively considered and planned for in accordance with the duty to co-operate. Cross boundary issues including the movement of waste and locating of facilities near to source must be managed and planned for collectively where possible.

2. SA PROCESS AND METHODOLOGY

The purpose of the SA is to advise Bradford Metropolitan District Council of the sustainability effects of the Waste Management DPD. The SA process is fully integrated in the writing of the DPD, influencing its development. This report describes the different stages of the SA process and the results.

There are five steps covering the whole SA process – see Figure NTS1. The areas shaded in green are those that have been completed.

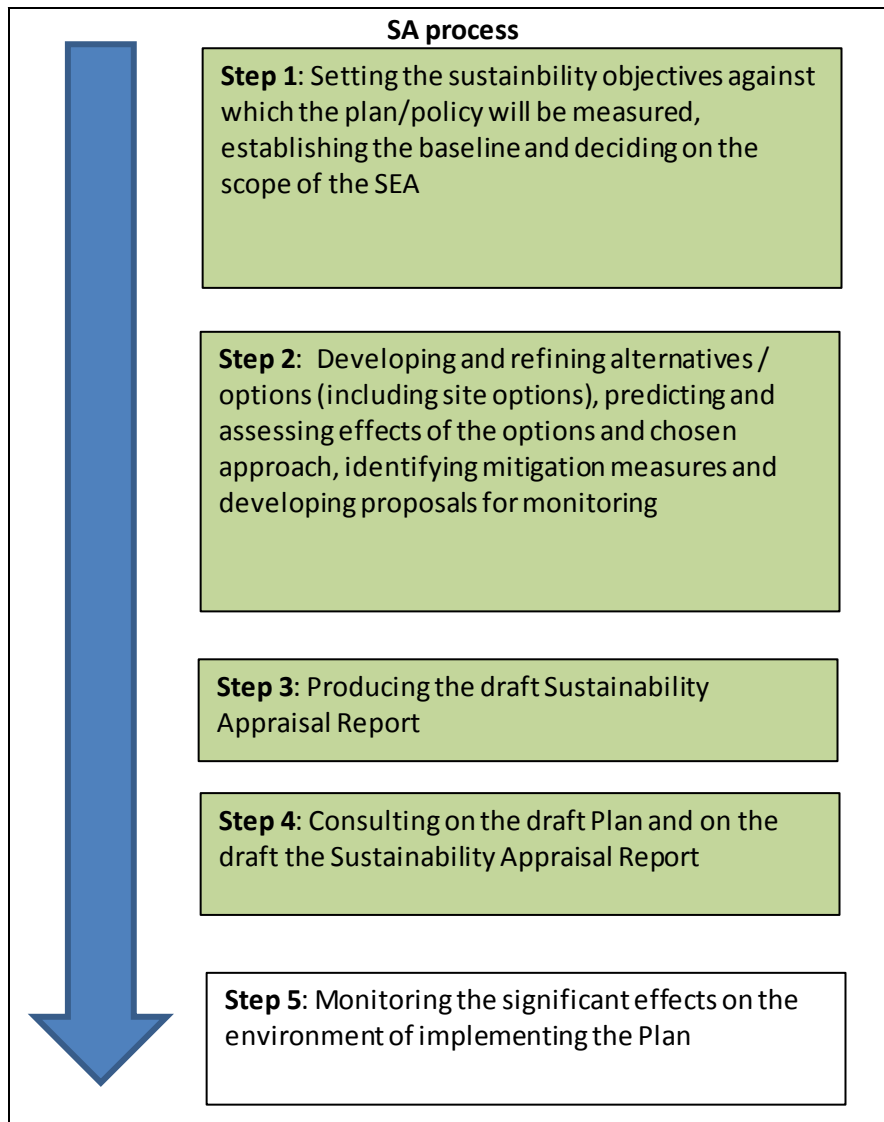


Figure NTS1: Steps in SA

2.1 Assumptions made and difficulties encountered

The purpose of this work is to assess the likelihood of significant environmental effects. SA relies on expert judgement, which is guided by knowledge of the likely impacts of the plan, the baseline data available and responses and information provided by consultees and other stakeholders. The assessment has been carried out and reported mainly using expert judgement and qualitative description of potential effects. A 'precautionary approach' is taken, especially with qualitative judgements.

The SEA Regulations state that effects assessment should include assessment of secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects. At this strategic level the information is often not available to assess to this level of detail. However, where information is available on the likelihood of different types of impacts this has been included in the results.

2.2 Defining significance

The SEA regulations requires the identification of significant (both positive and negative) effects. As part of the SA the definition of significance needs to be outlined. The approach this SA has taken in defining significance is as follows:

- The careful definition of the SA framework to ensure that it focuses on only those issues that have been determined to be potentially significant in the District; and
- When determining how likely the plan is to support the achievement of the SA objectives (and therefore be a significant effect) the following factors have been considered:
 - Characteristics of the effects; and
 - The sensitivity of the receptors involved.

In order to make the assignment of significance clearer to readers we have employed a key set out in Table NTS1.

Table NTS1: Significance criteria		
Score	Description	Symbol
Significant positive impact	The option / plan achieves all of the applicable SEA questions and has a positive effect with relation to characteristics of the effect and the sensitivity of the receptors	++
Minor positive impact	The option / plan achieves some of the SEA questions and has a positive effect with relation to characteristics of the effect and the sensitivity of the receptors	+
Neutral	The option / plan does not have an effect on the achievement of the SEA Objective or SEA questions	0
Minor negative impact	The option / plan conflicts with some of the SEA questions and has a negative effect with relation to characteristics of the effect and the sensitivity of the receptors	-
Significant negative impact	The option / plan conflicts with all of the applicable SEA questions and has a negative effect with relation to characteristics of the effect and the sensitivity of the receptors. In addition the future baseline indicates a worsening trend in the absence of intervention	--
Uncertain	It is unclear whether there is the potential for a negative or positive effect on the SEA Objective	?

2.3 Consulting on the SA Report

The SA report is being published for consultation alongside the Submission Draft Waste Management DPD in order to set out the significant sustainability effects of the Waste Management DPD as well as the alternatives considered in developing the Waste Management DPD.

The purpose of the consultation is to provide the statutory environmental bodies and other interested parties the opportunity to express their opinion on the SA report. It also enables them

to use the information within the SA report to guide their deliberations on the Submission Draft Waste Management DPD.

2.4 Habitat Regulations Assessment

A Habitats Regulations Assessment (HRA) of the Bradford Waste Management DPD has also been undertaken as part of the SA. The HRA concluded that an adverse effect could occur on the component site of the South Pennine Moors SPA/SAC (locally called Rombald's Moor) in connection with the inclusion of 'Site 78 – Aire Valley Road, Worth Village, Keighley' within Policy W3: Proposed Waste Site Allocations. This site is identified within Policy W3 as being suitable for waste management facilities and the supporting text identifies it as a potential location for a 'Pyrolysis and Gasification Facility'. It is therefore concluded in the HRA that Site 78 may not be suitable for a waste management use which uses combustion processes, and it has been recommended that the plan is amended to reflect that this.

3. WHAT'S THE POLICY CONTEXT?

One of the main purposes of reviewing other plans, policies and programmes is to ensure that the most up to date targets and objectives within other relevant documents are included in the SA Framework developed to appraise the Waste Management DPD.

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. This has been supplemented with a more comprehensive policy review for the Waste Management DPD which included not just waste plans and policies but other policies (such as Planning Policy Statements for example), which could affect the Waste Management DPD. Some of the key "sustainable development" messages coming out of the review of plans, policies and programmes are:

- Ensure natural resources are used efficiently and waste is minimised, reused or recycled;
- Contribute towards achieving sustainable development;
- Protect and enhance biodiversity;
- Contribute to sustainable communities;
- Reduce and avoidance nuisance associated with waste management;
- Improve air and water quality and reduce pollution;
- Reduce CO₂ emissions; and
- Reduce the need to travel and promote more sustainable freight transport.

These considerations have been integrated into the SA framework to ensure that the SA is helping to track progress towards the aspirations of these other plans, policies and programmes.

4. WHAT'S THE SITUATION NOW AND WHAT WOULD BE THE SITUATION WITHOUT THE PLAN?

4.1 Sustainability Baseline and Issues

Table NTS2 presents a summary of baseline data and the likely evolution of the baseline in the future (assuming that the Waste Management DPD is not implemented). The purpose of presenting baseline data is to provide a basis for assessing the potential impacts of the plan. The purpose of setting out the future baseline, in the absence of the plan, is to provide an understanding of what the situation would be without implementation of the plan. The likely evolution of the baseline has been extrapolated using available information relating to trends and information provided by the City of Bradford Metropolitan District Council.

Table NTS2: SA Baseline Summary and Future Baseline (current state and trends)		
SA Objective	Summary of Baseline Data	Future Baseline without the Waste Management DPD
Ensure the prudent and efficient use of energy and natural resources and the promotion of renewable energy.	Bradford's total carbon dioxide emissions in 2014-2015 were 83,387 tonnes CO ₂ e, compared with 84,789 tonnes CO ₂ e in 2013-2014. The Council is committed to reducing its overall carbon emissions by 40%, using 2005 as a baseline year. Sandstone is the principal mineral extracted in Bradford District, but there are also deposits of fireclay, peat, coal, sand and gravel.	Without the Waste Management DPD, the promotion of low-carbon energy generation from waste is unlikely to increase. Without the Waste Management DPD the production of recycled aggregate may be lower because this is something that the Waste Management DPD will encourage.
Minimise the growth in waste and increase the amount of waste which is re-used, recycled and recovered.	Bradford District produces a total municipal waste stream of some 292,000 tonnes per annum, 60,000 tonnes of which is trade waste. The majority of this is delivered directly to the two waste transfer stations (in Bradford to the south of the District and Keighley to the north), then transported by road to distant landfill sites in Wakefield and Skipton. The volume of waste produced is currently growing at approx 2-3% per annum.	The Bradford Core Strategy is also likely to contain policies which promote recycling and minimise the growth in waste. However, the Waste Management DPD will be instrumental in providing facilities for recycling materials and therefore the future baseline situation would be better with the Waste Management DPD.
Reduce the District's impact on climate change and vulnerability to its effects.	Bradford has a history of land and property being flooded through heavy downpours of rain and watercourses overflowing their banks. An increased programme of investment is currently underway to improve the standard of protection to existing communities. The CO ₂ emissions per capita in Bradford Metropolitan District in 2010 were 5.8 tCO ₂ .	With regards to flooding, the future baseline situation is considered to be stable or stable and declining because although climate change is likely to make the extent of areas at risk from flooding more widespread and the risk of flooding more frequent, the programme of investment for flood protection should manage flood risk. It is assumed that carbon dioxide will continue to reduce each year without the plan, due to the legislative controls and targets that are currently in place.
Safeguard and improve air, water and soil resources and reduce the number of people affected by noise and dust from waste management sites.	Air Quality: The pollutant of most concern is nitrogen dioxide, produced mainly by traffic. There are 4 AQMAS within Bradford, at Manningham Lane / Queens Rd junction; Mayo Ave / Manchester Rd junction; Thornton Rd (nr junction with Princess Way and Godwin St); and Shipley Airedale Rd and Church Bank.	Air quality in the AQMAS at Mayo Avenue and Shipley Airedale Road is predicted to potentially exceed the NO ₂ objective at least to 2015 unless action is taken to reduce pollutant contributions (NO ₂ in particular) from road transport by 25-40% (City of Bradford Metropolitan District Council, April 2009, 2009 Air Quality Updating and Screening

Table NTS2: SA Baseline Summary and Future Baseline (current state and trends)		
SA Objective	Summary of Baseline Data	Future Baseline without the Waste Management DPD
	<p>Water: In terms of water quality, it is more likely to be poor in the urban areas (Bradford and the becks to the south of the District). The Aire catchment tends to have better water quality.</p> <p>Soil: Agriculture in Bradford is generally based around stock rearing, mainly sheep. Nearly half the farmland is described as Grade 4 or 5.</p>	<p>Assessment for Bradford). Air quality at Manningham Lane and Thornton Road AQMAs is due to meet the NO² objective by 2010.</p> <p>The future water quality of the District's watercourses will remain the same.</p> <p>With regards to soils, soils could be lost through greenfield development for housing, employment uses and infrastructure.</p>
To conserve, restore, expand and enhance the internationally, nationally and locally valued wildlife species and habitats.	Northern and western parts of the District are considered to be of international nature conservation value, namely Rombald's Moor and the other South Pennine Moors have been designated as SPAs and SACs for their moorland breeding birds and their upland habitats. In addition, Bradford has: Four SSSIs; Twenty-one Sites of Ecological or Geological Importance (SEGIs); Sixteen Regionally Important Geological / Geomorphological Sites (RIGS); and Over one hundred sites of local nature conservation value (Bradford Wildlife Areas, BWAs).	It is difficult to determine the future baseline with regards to biodiversity and nature conservation sites in the absence of the plan as there is little trend information available. The future baseline is considered to be unknown but potentially declining.
Ensure restoration to biodiversity end use for waste (landfill) sites and contribute to realising local and national BAP targets.	Within the Bradford LBAP, the following habitats and species have action plans to protect and enhance their status: Upland oak woodland; River corridors; In by pasture; Hedgerows; Otter; Water vole; Pipistrelle; Brown hare; Crayfish; Grayling; White letter hairstreak butterfly; Green hairstreak butterfly; Blue butterflies; Twite; Yellowhammer; Lapwing; Lesser twayblade; and Marsh fern.	The future baseline is considered to be unknown but potentially declining.
To maintain, restore and enhance the character, value and diversity of natural and man-made landscapes.	<p>The character of the District's landscape is very varied, ranging from the rugged open moorland of the South Pennine uplands to rolling farmland, and open river valleys to wooded hillsides.</p> <p>Much of the District's countryside is designated Green Belt. There are no Areas of Outstanding Natural Beauty in</p>	There is no baseline data that suggests that landscapes are under threat or declining, however, it cannot be assumed that landscapes are not under threat from development and climate change. The future baseline is unknown but possibly not stable due to influences such as climate change.

Table NTS2: SA Baseline Summary and Future Baseline (current state and trends)		
SA Objective	Summary of Baseline Data	Future Baseline without the Waste Management DPD
	Bradford District, although the Nidderdale AONB lies adjacent to the northern boundary.	
Increase proximity of waste management infrastructure to current and future centres of population in order to reduce mileage travelled and encouraging waste segregation in new development.	<p>Around one third of the District is urban. The rural areas include many villages ranging from the larger ones, such as Wilsden and Addingham, to small ones, including Esholt and Stanbury, which serve as commuter settlements.</p> <p>Household waste recycling centres are currently well spread across the settlements in the District. However there are only two waste transfer stations (in Bradford to the south of the District and Keighley to the north), then transported by road to distant landfill sites in Wakefield and Skipton.</p>	Without the Waste Management DPD, waste arisings may increase with population increase and housing development, meaning that more waste will need to be transported across the District for transfer and disposal. The future baseline without the plan is therefore declining. However, it should be recognised that even with the DPD in place waste arisings will increase. However, with a waste planning framework in place, the waste arisings will be dealt with more sustainably.
Reduce nuisance caused to communities by waste transport.	Bradford is relatively well connected, with Junction 26 of the major east-west M62 artery only three miles from the city centre, connected directly by the M606.	Major regeneration projects are likely to lead to increased traffic movements on inner and outer ring roads. The future baseline is therefore considered to be declining.
Encourage a modal shift away from road freight.	Rail access to the District is good, with direct passenger services via the Airedale Line and Wharfedale to Leeds and Skipton. Direct passenger rail links are also available	Non-road transport infrastructure within the District is expected to remain stable in the future and will remain the same with or without the Waste Management DPD.
Improve the quality of the built environment, protect and enhance historic assets and make efficient use of land.	<p>Bradford District has over 5,800 buildings of special architectural or historic interest.</p> <p>According to the LDF Annual Monitoring Report (2015) over 72% of development has taken place on Previously Developed Land (PDL), in 2014-2015, which is in excess of the former 65% Regional Spatial Strategy target.</p>	It is very difficult to predict the future baseline with regards to the quality of the built environment and efficient use of land as the future will depend largely on new development, investment and maintenance. The future baseline with regards to this issue is therefore uncertain.
Avoid, protect and enhance historic assets.	The District has: Fifty-six designated Conservation Areas; Ten historic parks and gardens; Two hundred and two Scheduled Ancient Monuments; One historic battlefield, at Adwalton Moor; and One World Heritage Site at Saltaire.	The key threats to historic assets include loss due to development, damage from climate / natural events, lack of maintenance and factors affecting their setting such as inappropriate development or traffic. The risk of any of these factors affecting the historic assets within the District are unknown and therefore the future baseline is unknown.

Table NTS2: SA Baseline Summary and Future Baseline (current state and trends)		
SA Objective	Summary of Baseline Data	Future Baseline without the Waste Management DPD
Improve the quality and range of services available within communities and connections to wider networks.	Access to health services and to education facilities is generally very good. Figures are similar for access to primary schools and employment centres	There is no baseline data which suggests that access to facilities and services will change in the future.
Ensure local communities (both residents and the business community) take more responsibility for their own waste	The majority of waste in Bradford is delivered directly to two waste transfer stations (in Bradford to the south of the District and Keighley to the north), then transported by road to landfill sites in Wakefield and Skipton.	The future baseline without the plan is expected to get worse. In the absence of the plan there will be no planning framework to protect important existing waste management facilities that are delivering the Bradford Waste Hierarchy.
Avoid impacts on open space, cultural, leisure and recreation opportunities	The District has thirty-four urban parks, twenty-seven woodlands and one hundred and three recreation grounds.	It is assumed that the future baseline without the plan will remain stable.
Reduce the impact of the waste industry on people's safety and security, health and quality of life	Please note that there are no data available on how waste management specifically affects people's safety and security, health and quality of life. The data below sets out generic information about safety and security, health and quality of life in Bradford. Bradford is the fifth most deprived local authority in England in terms of income deprivation. Unemployment levels vary widely, with wards around the centre of Bradford having the highest rates of unemployment. Life expectancy figures for Bradford are lower than the national/sub-regional averages.	The future baseline without the plan is expected to remain the same.
Support employment in the waste industry for local people.	Unemployment rates in 2014 reflected the economic 'recovery' following the global economic downturn in recent years.	With public sector cuts announced recently, the future economic outlook for Bradford is uncertain. With regards to waste related employment, this is largely provided through private companies and may not be affected by public sector cuts and could potentially therefore remain more stable.
Ensure the provision of adequate waste management capacity.	The preferred forecast projections for each waste stream are as follows:	Without the plan, capacity for the management and disposal of waste will not be provided within Bradford and waste will continue to be sent outside of the District for disposal in landfill.

Table NTS2: SA Baseline Summary and Future Baseline (current state and trends)		
SA Objective	Summary of Baseline Data	Future Baseline without the Waste Management DPD
	<p>Municipal Solid Waste: By 2026 there is an identified requirement to accommodate 345,617 tonnes of MSW waste.</p> <p>Commercial and industrial waste: By 2026 it is forecast that this will have decreased to 542,156 tonnes.</p> <p>Construction, demolition and excavation waste: By 2026, it is forecast that 531,135 tonnes of CDEW arisings will need to be managed within Bradford District</p> <p>Hazardous waste: Arisings in Bradford (2008 figures) are estimated to be 21,821 tonnes per annum. The best available evidence indicates that this annual figure will not increase by 2026.</p>	

5. WHAT ARE THE ALTERNATIVES UNDER CONSIDERATION?

The alternative options for the DPD were set out in a document called the Bradford Waste Management DPD Issues and Options Paper, which was published in November 2009. This document included a number of policy options and also a number of site options. These options were chosen as they were felt to represent reasonable alternative approaches to waste management in Bradford. The sustainability effects of the options were assessed and reported in the following report: *Bradford Local Development Framework, Waste Development Plan Document Sustainability Appraisal of the Issues and Options Paper (ENVIRON, May 2010)*.

The plan making team were provided with the results of the options assessments and used the results of the options assessment to develop the preferred options.

For each strategic issue, Table 5.1 in the main SA report summarises why strategic options were chosen over the alternatives available. Chapter 6 of the main SA report summarises the site selection process and provides the rationale for selecting the preferred site options.

This information was taken into account by the plan team when selecting the short list of sites. Sites with the largest number of green (positive) scores were concluded to have the greatest potential to accommodate waste management facilities. For each type of waste facility a shortlist of sites has been created based on site size and the proportion of positive scores against the criteria long list. Please note that site size was an important factor in the selection of sites, meaning that some sites which had poorer scores have had to be chosen.

6. SIGNIFICANT EFFECTS OF THE PLAN

6.1 Introduction

Within the SA report, the results of the assessment have been summarised in two ways. Section 6.2 outlines the significant negative and positive effects that were identified. Table 7.1 then presents a summary of the findings of the assessment for each policy. The full results of the appraisal are reported in Annex C to the SA report.

The significant effects of the plan are reported below.

6.2 Significant Effects of the Policies

With relation to the assessment of the plan policies, the sustainability assessment has not identified the potential for significant negative effects. However a number of **uncertain effects** were identified against the following SA objectives:

- *Policy W1: Cross Boundary Working* in relation to the following SA objectives:
 - SA10: Encourage a modal shift away from road freight
 - SA16: Reduce the impact of the waste industry on people's safety and security, health and quality of life
- *Policy: W6: Sites for Hazardous Waste* in relation to the following SA objective:
 - SA3: Reduce the District's impact on climate change and vulnerability to its effects and
 - SA17: Support employment in the waste industry for local people
- *Policy: WDM2: Assessing all applications for New and Expanded Waste Management Facilities* in relation to the following SA objectives:
 - SA10: Encourage a modal shift away from road freight,
 - SA15: Avoid impacts on open space, cultural, leisure and recreation opportunities
- *Policy: WDM4: Waste Management within Development* in relation to the following SA objective:
 - SA4: Safeguard and improve air, water and soil resources and reduce the number of people affected by noise and dust from waste management sites
- *Policy: WDM5: Landfill Development for Final Disposal of Residual Waste* in relation to the following SA objective:
 - SA10: Encourage a modal shift away from road freight.

The assessment identified the following **significant positive effects**:

- *Vision and Waste Management Objectives* in relation to the following SA objectives: SA2: Minimise the growth in waste and increase the amount of waste which is re-used, recycled and recovered, SA4: Safeguard and improve air, water and soil resources and reduce the number of people affected by noise and dust from waste management sites, SA9: Reduce nuisance caused to communities by waste transport, SA13: Improve the quality and range of services available within communities and connections to wider networks, SA14: Ensure local communities take more responsibility for their own waste, SA17: Support employment in the waste industry for local people and SA18: Ensure the provision of adequate waste management capacity;
- *Policy W1: Cross Boundary Working* in relation to the following SA objectives: SA18: Ensure the provision of adequate waste management capacity;
- *Policy W2: Bradford's Future Waste Capacity Requirements* in relation to the following SA objectives: SA2: Minimise the growth in waste and increase the amount of waste which is re-used, recycled and recovered, SA13: Improve the quality and range of services available

- within communities and connections to wider networks, SA14: Ensure local communities take more responsibility for their own waste, SA17: Support employment in the waste industry for local people, and SA18: Ensure the provision of adequate waste management capacity;
- *Policy W4: Sites for Construction, Demolition and Excavation Waste* in relation to the following SA objectives: SA2: Minimise the growth in waste and increase the amount of waste which is re-used, recycled and recovered, SA14: Ensure local communities take more responsibility for their own waste and SA18: Ensure the provision of adequate waste management capacity;
 - *Policy: W5 Sites for Agricultural Waste* in relation to the following SA objectives: SA4: Safeguard and improve air, water and soil resources and reduce the number of people affected by noise and dust from waste management sites, SA14: Ensure local communities take more responsibility for their own waste and SA18: Ensure the provision of adequate waste management capacity;
 - *Policy: W6: Sites for Hazardous Waste* in relation to the following SA objective: SA18: Ensure the provision of adequate waste management capacity;
 - *Policy: W7: Sites for Residual Waste for Final Disposal (i.e. Landfill)* in relation to the following SA objectives: SA2: Minimise the growth in waste and increase the amount of waste which is re-used, recycled and recovered, SA17: Support employment in the waste industry for local people and SA18: Ensure the provision of adequate waste management capacity;
 - *Policy: WDM1: Unallocated Sites* in relation to the following SA objectives: : SA13: Improve the quality and range of services available within communities and connections to wider networks, SA14: Ensure local communities take more responsibility for their own waste and SA18: Ensure the provision of adequate waste management capacity;
 - *Policy WDM2: Assessing All Applications for New and Expanded Waste Management Facilities* in relation to the following SA objectives: SA11 Improve the quality of the built environment, protect and enhance historic assets and make efficient use of land and SA12: Avoid, protect and enhance historic assets;
 - *Policy: WDM3: Applications resulting in the loss of a Proposed or Existing Waste Management Facility* in relation to the following SA objectives: SA2: Minimise the growth in waste and increase the amount of waste which is re-used, recycled and recovered;
 - *Policy: WDM4: Waste Management within Development* in relation to the following SA objectives: SA1: Ensure the prudent and efficient use of energy and natural resources and the promotion of renewable energy, SA2: Minimise the growth in waste and increase the amount of waste which is re-used, recycled and recovered and SA3: Reduce the District's impact on climate change and vulnerability to its effects.; and
 - *Preferred Policy: WDM5: Landfill Development for Final Disposal of Residual Waste* in relation to the following SA objectives: SA18: Ensure the provision of adequate waste management capacity.

6.3 Significant Effects of the Sites

The assessment identified the following **significant negative effects** with relation to the assessment of the selected sites:

- *Site 78* in relation to in relation to the following SA objective: SA5: To conserve, restore, expand and enhance the internationally, nationally and locally valued wildlife species and habitats.
- *Site 104* in relation to the following SA objective: SA4: Safeguard and improve air, water and soil resources and reduce the number of people affected by noise and dust from waste management sites.

In addition, the following **uncertain effects** have been identified which have the potential to give rise to significant negative effects:

- *All of the sites (apart from site 104)* in relation to the following SA objective SA6: Ensure restoration to biodiversity end use for waste (landfill) sites and contribute to realising local and national BAP targets; and
- *Site 78* in relation to the following SA objective: SA7: To maintain, restore and enhance the character, value and diversity of natural and man-made landscapes.

The assessment identified the following **significant positive effects**:

- *Site 1* in relation to effects on landscape and improving the quality of the built environment and making efficient use of land;
- *Site 11* in relation to encouraging modal shift;
- *Site 78* in relation to encouraging modal shift; and
- *Site 121* in relation to encouraging modal shift.

6.4 Cumulative Effects

The SEA Regulations require an assessment of cumulative effects. Cumulative effects arise, for instance, where several developments in isolation would have insignificant effects but together are predicted to give rise to a significant effect; or where several individual effects of the plan (e.g. noise, dust and visual) have a combined effect. The term can also be used to describe synergistic effects, which interact to produce a total effect greater than the sum of the individual effects. A separate cumulative effects assessment has been undertaken following the assessment of the individual policies and sites. The cumulative effects assessment has considered potential cumulative effects of other programmes, plans, policies and projects with the effects of the Waste Management DPD.

The cumulative effects assessment found that there would be no negative cumulative effects in association with other plans and programmes.

The cumulative effects assessment also examined the potential for different elements of the plan itself to interact to cause cumulative effects. No significant cumulative effects were identified.

7. MITIGATION AND MONITORING

7.1 Mitigation

Mitigation measures are measures outlined to prevent, reduce or offset effects. Where a draft policy or site has a significant negative effect, measures should be implemented to prevent, reduce or offset these effects. This may take the form of measures to be implemented prior to the policy itself being implemented or it can take the form of a change in policy wording. In addition, any uncertain effects should have mitigation suggested in order to reduce uncertainty and the potential for this to give rise to a significant negative effect. Where possible enhancement measures have also been suggested to enhance the positive or neutral effects of policies.

The suggested mitigation and enhancement measures are shown in Tables NTS 3 and NTS 4.

Table NTS 3 : Mitigation measures - policies	
Policy	Mitigation and enhancement measures
Vision and Waste Management Objectives	<p>Enhancement measures</p> <p>Include explicit reference to how measures of self-sufficiency, promotion of waste hierarchy and the proximately principle which are embedded in the policy also support climate mitigation and to a degree adaptation.</p> <p>Include commitment to modal shift in vision and objectives.</p>
W1: Cross Boundary Working	<p>Mitigation measures</p> <p>Include pursuit of modal shift as an aim of cross boundary working as this cannot be achieved in isolation from neighbouring authorities. Although much of the waste transport in the District is transported short distances a commitment is still felt to be important in case the future situation changes.</p>
W5: Sites for Agricultural Waste	<p>Enhancement measures</p> <p>If possible, the policy should address the use of agricultural waste as a fuel for renewable energy.</p>
Policy WDM 2: Assessing All Applications for New and Expanded Waste Management	<p>Mitigation measures</p> <p>Opportunities for landscape enhancement (including of a long term nature through restoration) should be sought to avoid cumulative negative effects.</p> <p>Enhancement measures</p> <p>Climate change adaptation - The policy requires assessment of the facilities on the environment but not of the environment on the facilities. Future climate proofing could be a requirement to reduce the vulnerability of waste management facilities. This needs to include issues such as ensuring adequate drainage is in place.</p> <p>It would be useful if the policy addressed the effects of sites on habitat loss or fragmentation.</p> <p>The policy should include reference to development helping to meet targets outlined in BAPs.</p> <p>Make reference to Policy EN1 of the Core Strategy to ensure open space / recreation are protected from being built upon as a result of waste management facilities.</p>
Policy WDM4: Waste Management within Development	<p>Mitigation measures</p> <p>Measures should be put in place as part of planning application procedures to ensure that the on-site use and recovery of CDEW is undertaken in accordance with environmental management regulations and best practice.</p>

Table NTS 3 : Mitigation measures - policies	
Policy	Mitigation and enhancement measures
Policy WDM5: Landfill Development for Final Disposal of Residual Waste	<p>Mitigation measures</p> <p>It would be useful if the policy addressed the effects of sites on habitat loss or fragmentation.</p> <p>More emphasis should be given in Policy WMD5 to supporting sites where non-road transport is a possibility.</p> <p>Enhancement measures</p> <p>The policy could go further in encouraging climate adaptation. Vulnerability to climate change, risks from extreme weather events, flooding hotter summers, etc. should be taken into account in the design and siting of these facilities.</p> <p>The emphasis of WDM5 should be changed from minimisation of harm to enhancement of biodiversity (including of a long term nature through restoration) and this should include reference to development helping to meet targets outlined in BAPs.</p>

Table NTS 4: Mitigation measures - Sites	
Site	Mitigation and enhancement measures
Site 1	<p>For all of the sites appraised, ecological surveys should be undertaken at the planning application stage and any mitigation required should work towards the achievement of the local BAP targets.</p> <p>Site 1: Before site development takes place the following effects will need to be investigated and mitigated: the potential on the site for habitat fragmentation, habitat enhancement (including helping to achieve BAP targets).</p>
Site 11	<p>For all of the sites appraised, ecological surveys should be undertaken at the planning application stage and any mitigation required should work towards the achievement of the local BAP targets</p> <p>Site 11: Before site development takes place the following effects will need to be investigated and mitigated: the potential on the site for habitat fragmentation and habitat enhancement (including helping to achieve BAP targets). Air quality and noise should be assessed (in accordance with Policy WDM2) and mitigation put in place as necessary.</p>
Site 78	<p>For all of the sites appraised, ecological surveys should be undertaken at the planning application stage and any mitigation required should work towards the achievement of the local BAP targets.</p> <p>Site 78: Visual and landscape assessment would be required due to the sites visibility and prominence within the area. Visual improvements to the site should be sought through its redevelopment; The potential effects of a waste management use could be avoided by the plan stating that an incinerator, gasification and/or pyrolysis plant is not operated on that site. Alternatively, potential effects of an incinerator, gasification and / or pyrolysis plant would need to be assessed through a project level Appropriate Assessment (AA). The effects of a very tall stack (if development of this type does proceed on site) will need to be investigated before development goes ahead.</p>
Site 92	<p>For all of the sites appraised, ecological surveys should be undertaken at the planning application stage and any mitigation required should work towards the achievement of the local BAP targets</p> <p>Site 92: Before site development takes place the following effects in particular will need to be investigated and mitigated: effects on the two Listed Buildings west of the site, the effect on the quality of the surrounding built</p>

Table NTS 4: Mitigation measures - Sites	
	environment and the potential on the site for habitat fragmentation, habitat enhancement (including helping to achieve BAP targets). Air quality, noise and visual effects should be assessed and mitigation put in place as necessary due to residential receptors located nearby.
Site 104	For all of the sites appraised, ecological surveys should be undertaken at the planning application stage and any mitigation required should work towards the achievement of the local BAP targets Site 104: Air quality and noise assessment and appropriate mitigation will be required in order to ensure there are no negative effects on sensitive receptors
Site 121	For all of the sites appraised, ecological surveys should be undertaken at the planning application stage and any mitigation required should work towards the achievement of the local BAP targets Site 121: Before site development takes place the following effects in particular will need to be investigated and mitigated: effects on the two Listed Buildings west of the site, the effect on the quality of the surrounding built environment and the potential on the site for habitat fragmentation, habitat enhancement (including helping to achieve BAP targets).

The SA report has put forward the following mitigation measure to offset the identified potential negative cumulative effect:

- Before sites are developed the effects on road transport should be assessed as part of the planning application. This should assess the impacts in relation to other developments (including waste development) that are reasonably foreseeable and that might cause cumulative impacts in association with the development.

7.2 Monitoring

The SEA Regulations require the significant environmental effects of plans and programmes to be monitored, in order to identify at an early stage unforeseen adverse effects, and to be able to take appropriate remedial action.

Monitoring will allow the Council to identify whether the recommended mitigation measures from the SA have been effective and develop further mitigation proposals that may be required where unforeseen adverse effects are identified. In some cases monitoring may identify the need for a policy to be amended or deleted, which could trigger a review of the Waste Management DPD, or for further policy guidance to be developed (for example an SPD).

A final monitoring programme to monitor the significant effects of the Submission Draft Waste Management DPD is set out in Table NTS 5 below.

Table NTS 5: SA monitoring programme	
Significant / uncertain effect identified	Monitoring required
Significant effect: Site 78 in relation to the effect on Natura 2000 sites. If waste to energy technologies are used on the site (incineration, gasification and/or pyrolysis) there could be a likely significant effect on the South Pennine Moors SAC and Phase 2 SPA and the North Pennine Moors SAC and SPA.	If development of waste to energy technologies occurs on the site rigorous monitoring of air pollution (as well as mitigation measures) will need to be agreed with Natural England and the Environment Agency.

Table NTS 5: SA monitoring programme	
Significant / uncertain effect identified	Monitoring required
Significant effect: Site 104 in relation to soil resources and potential air and noise effects on neighbouring receptors.	The site is close to urban greenspace and therefore could have an effect on sensitive receptors (people using the greenspace). The effect of any site development on the use of the greenspace needs to be monitored.
Uncertain effect: All of the sites in relation to Biodiversity Action Plan (BAP) targets.	The contribution of waste development to potential BAP targets should be monitored.
Uncertain effect: Site 78 in relation to landscape and visual effects.	Any planning application would need to be accompanied by a landscape and visual impact assessment to demonstrate the level of effects and their importance depending upon the design of the particular scheme.
Uncertain effect: Effects of all of the sites in relation to effects on transport. All of the sites, if implemented are likely to be taking waste from a large area within Bradford and this could cause negative cumulative effects on road transport.	As sites come forward for development the effects on road transport should be monitored.
<p>Uncertain effect: Preferred Policy W2 will have an uncertain effect on modal shift. Cross boundary working provides a good opportunity to deliver on modal shift. However, this is not stated so the policy has been scored as uncertain.</p> <p>Uncertain effect: Preferred Policy WMD2 will have an uncertain effect on promoting modal shift. More emphasis should be given in the policy to supporting sites where non-road transport is a possibility.</p> <p>Uncertain effect: Preferred Policy WMD5 will have an uncertain effect on promoting modal shift. More emphasis should be given in the policy to supporting sites where non-road transport is a possibility.</p>	It would be useful to monitor the use of alternative modes of transport used to transport waste (although this is expected to be minimal).
Uncertain effect: Preferred Policy W2 will have an uncertain effect on reducing the impact of the waste industry on people's safety and security, health and quality of life. One potential outcome could be the focusing of waste management facilities in one location providing efficiencies but this could also have a potentially larger effect on certain communities. However, this is an uncertain effect.	The effect on communities of waste management developments will need to be monitored as part of the planning process. This could include noise, air quality monitoring and monitoring of HGV movements.

Table NTS 5: SA monitoring programme	
Significant / uncertain effect identified	Monitoring required
Uncertain effect: Preferred Policy W9 (on hazardous waste) will have an uncertain impact on climate emissions. This is because if a sub-regional facility is developed relatively far away from Bradford, transport (thus climate emissions) could rise.	As part of the DPD monitoring process the effects of sub-regional waste facilities (including on employment and on the distance that waste in general and hazardous waste is travelling) should be monitored and an assessment made (at the next round of the Waste DPD) as to whether this is the most sustainable management of waste.
Uncertain effect: Preferred Policy W9 (on hazardous waste) will have an uncertain impact on supporting employment in Bradford.	Hazardous waste is currently treated outside the District and in the future if new facilities are needed these are likely to be sub regional facilities. This may mean that hazardous waste may always be treated outside of the District. This makes the potential for job creation difficult to predict. Ongoing monitoring is needed regarding the strategy for hazardous waste disposal in the Sub Region.
Uncertain effect: Preferred Policy WMD2 will have an uncertain effect on protecting open space. The policy should be clearer that areas of open space / recreation are protected within policy.	The effect of waste sites on areas of land-take of open space should be monitored.

8. NEXT STEPS

This is the SA report of the Bradford Waste Management DPD Submission Draft. The Submission Draft of the plan (and this SA report) will be subject to a further brief period of consultation (6 weeks) before it is submitted to the Secretary of State.

Once the plan is adopted, a Sustainability Appraisal (SA) adoption statement will need to be published in accordance with the SEA Regulations (Statutory Instrument 2004 No. 1633 on The Environmental Assessment of Plans and Programmes). These regulations state that as soon as reasonably practicable after the adoption of the plan a statement should be produced and published setting out how environmental considerations and opinions expressed through consultation have been taken into account in the planning process.

For further information on the timetable with regard to the next steps in the production of Waste Management DPD, please contact the Planning Policy team on planning.policy@bradford.gov.uk or consult the Council's website:

http://www.bradford.gov.uk/bmdc/the_environment/planning_service/local_development_framework/bradford_waste_development_plan.htm.