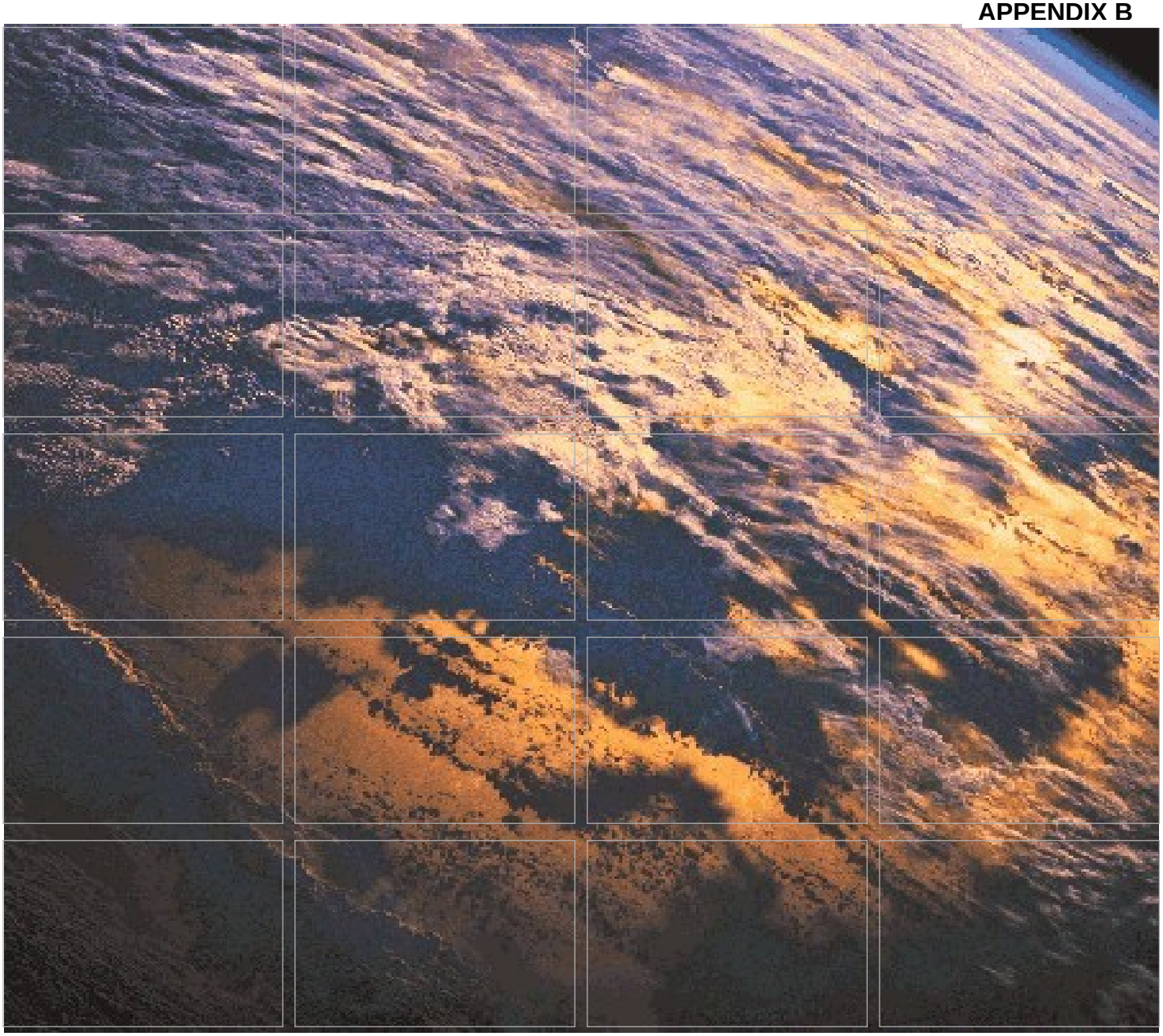
APPENDIX B



Sustainability Appraisal Report for the West of England Joint Waste Core Strategy Submission Version

Chapter 1 - Summary

September 2009

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West of England Unitary Authorities

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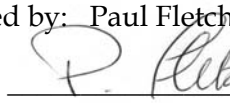
Chapter 1 – Summary

September 2009

Prepared by: Hilary Livesey

For and on behalf of
Environmental Resources Management

Approved by: Paul Fletcher _____

Signed:  _____

Position: Partner _____

Date: September 2009 _____

CONTENTS

1 SUMMARY AND OUTCOMES

1.1 NON-TECHNICAL SUMMARY

1.1.1 Overview

This report sets out details of the process and outcomes of a Sustainability Appraisal (SA) of the West of England Joint Waste Core Strategy (JWCS) Submission Version. The Submission Version of the JWCS has been developed by the four unitary authorities in the West of England and is the culmination of an iterative process of development of the JWCS, incorporating a number of formal and informal stages. SA has been an integral part of that process from the beginning.

Under the Planning and Compulsory Purchase Act 2004 the West of England authorities are required to undertake an SA of Local Development Documents including the JWCS. The SA must also satisfy the requirements for a Strategic Environmental Assessment (SEA) arising from the authorities' obligations under the European Directive on SEA and the implementing Regulations in England and Wales.

The overall purpose of the SA is to evaluate the likely implications for sustainable development in the West of England of the proposed JWCS and reasonable alternatives to it. The aim is to inform the plan-making process to enable the JWCS to take account of the ways in which waste management might affect the economy, environment and communities of the West of England.

The SA tested the Submission version of the JWCS against a series of objectives that reflect relevant sustainable development policy objectives. The JWCS and a number of options were tested to determine their potential to give rise to significant effects, in order to enable the amendment and improvement of the JWCS in the light of knowledge of the potential impacts on relevant sustainable development policy objectives. As part of the iterative process of development of the JWCS, recommendations for amendments have been made by the SA at various stages and incorporated into the JWCS as it has developed.

The findings and recommendations reached through the SA are set out in this report, and the method by which the appraisals were undertaken is described.

1.1.2 The West of England JWCS and its Context

The overall purpose of the JWCS is to provide a policy framework by which the West of England authorities will jointly carry out their statutory duty to provide a land use plan for the management of waste. In doing this, the following strategic objectives have been identified.

Box 1.1 Strategic Objectives of the JWCS

- To move the management of waste up the waste hierarchy by increasing waste minimisation, recycling and composting then recovering further value from the remaining waste and only looking to landfill for the disposal of pre-treated waste.
- To enable communities and businesses in the West of England to take responsibility for the waste they generate.
- To continue to promote public awareness towards a shared commitment to waste prevention and reuse.
- To deliver the timely provision of an integrated network of waste management facilities to meet requirements in the West of England.
- To contribute to reducing and adapting to the impacts of climate change by driving waste up the hierarchy and encouraging the provision of waste management facilities at appropriate locations having regard for minimising and mitigating flood risk.
- To encourage sustainable construction and waste minimisation in new development.
- To ensure that waste management facilities do not harm the environment or endanger human health and where possible provide benefits.
- To locate development in accordance with land use priorities, giving preference to previously developed land and/or urban areas.

The following issues are covered by the detailed policies in the JWCS in order to achieve the aims set out above:

Box 1.2 Scope of JWCS Policies

- Promotion of waste minimisation, through awareness raising, working in partnership and the requirement for waste audits for new developments.
- Siting of facilities for recycling, composting and other non-residual waste management facilities through the adoption of criteria for the location of sites.
- Identification and safeguarding of specific sites and broad locations for residual waste treatment facilities as well as operational expectations for those facilities.
- Allowing for non-allocated sites for residual waste treatment facilities to come forward.
- Conditions for granting approval of applications for landfill, landraise or other disposal operations, including gas recovery and aftercare.
- Conditions for granting approval for wastewater treatment plant.
- Protection of planning designations and general considerations for the management of developments.

The JWCS sits within a framework of other policy documents which together influence both the content of the plan and its implementation. The most important of these are:

- European Union legislation, most importantly the *Landfill Directive*, which sets binding targets for reduction in the amount of biodegradable municipal waste sent to landfill, and the *Waste Framework Directive* which

implements the waste hierarchy and sets requirements for recycling and recovery;

- National legislation which is binding on the West of England authorities, principally the *Waste and Emissions Trading Act 2003* which implements the *Landfill Directive* in the UK and introduces a scheme of trading in landfill allowances;

- National waste policy which sets the framework of overarching policy objectives for Waste Local Development Documents (LDDs), including objectives such as promoting waste minimisation and implementing the waste hierarchy;

- National planning guidance which sets out details of the policy approaches which should be adopted by local and regional authorities;

- The draft Regional Spatial Strategy, which sets out policies for dealing with the South West region's waste, and with which local authorities should seek to align their waste LDDs;

- A *Joint Residual Municipal Waste Management Strategy* for the West of England authorities, which sets out a 20-year plan for the management of residual municipal waste, which the JWCS seeks to enable by providing the necessary planning framework;

- West of England statutory plans, including the Joint Replacement Structure Plan and individual authority Local Plans, which currently set the local framework for the content and implementation of the JWCS, particularly policies on the location and control of development; and

- West of England non-statutory strategies and plans, which guide the policy approach of the JWCS on specific issues, but are not binding.

A list of relevant policies, plans and programmes and a review and summary of their content is set out in *Annex A*.

1.1.3 The Current State of Sustainable Development in the West of England

The main issues for sustainable development in the West of England and which are relevant to the JWCS are summarised in the following table.

Table 1.1 Key Environmental, Social and Economic Issues for the West of England

Category	Key Issues
Air quality	Most of the region has good air quality although two Air Quality Management Areas have been designated where a build-up of traffic-based pollution such as NO_2 and PM_{10} may reach levels of concern. These are in Bristol covering the city centre and parts of the main radial roads, and in Bath city centre.

Category	Key Issues
Climate change	Over 7 million tonnes of carbon dioxide was emitted in the region in 2006. Methane is also a potent greenhouse gas, arising in part from waste management, although figures are not available.
Flood risk	There are very significant areas of the sub-region that are subject to flood risk, especially large parts of Bristol, South Gloucestershire and North Somerset.
Water quality & availability	The West of England generally has good water quality. There are a number of pressures on regional water resources, including housing demand, economic development and climate change, and demand is predicted to rise.
Waste	In 2007/08, the West of England generated a total of 541,000 tonnes of municipal waste. Although recycling is above the England average, the sub-region also landfills more of its municipal waste than average. Commercial/industrial and construction/demolition waste are each larger waste streams than the municipal solid waste stream. 10%of C&D waste was landfilled in 2000/01, however, no data was available for C&I waste disposal routes.
Landscape	The West of England contains parts of two Areas of Outstanding Natural Beauty. 47% of the West of England area is designated as green belt. The Forest of Avon covers approximately 57,000 ha.
Land quality	The West of England has relatively low amounts of previously developed land and derelict buildings, with most occurring in Bristol and North Somerset.
Biodiversity	The West of England contains sites of international, national and local importance. There are 8 internationally-designated sites within the sub-region and a further site outside but within 10km of potential waste sites. Sites of Special Scientific Interest (SSSIs) are in good condition compared to both the regional and the national picture but below the national target. A number of habitats and species have been prioritised for protection and enhancement in Local Biodiversity Action Plans.
Transport	In the last 10 years, the volume of traffic has grown faster than the national average. Car ownership is very high and congestion is a major issue on the motorway network and in the city centres.
Built, cultural and archaeological heritage	The West of England has 179 Scheduled Ancient Monuments, 8179 Listed Buildings, 38 Historic Parks and Gardens and Battlefields and 135 conservation areas. The city of Bath is a World Heritage Site.
Amenity	An area around Bristol has been identified as a fly-tipping 'hotspot', indicating a moderate problem. There is significant night light pollution in populous areas, particularly around Bristol. Relevant data on noise is not available.
Health	Census and other data indicates health is relatively good across the sub-region, with South Gloucestershire and Bath and North East Somerset having better health than the regional and national average.
Deprivation	Bristol has a relatively high level of deprivation whilst South Gloucestershire is relatively affluent in comparison to England as a whole.
Economy	The South West has one of the smallest economies of the English regions. The GVA per head for the West of England is higher than the regional and national average although growth has slowed recently.

Category	Key Issues
Employment	The South West has a higher than average percentage of those of working age in work. The largest sector for numbers in employment in the West of England is in the transport, storage and communication services.

1.1.4 Areas Likely to be Significantly Affected by the JWCS

The appraisal has considered the areas likely to be significantly affected by implementation of the JWCS, in order to identify the sustainability characteristics of those areas. In reality, the effects of implementation of the plan can be considered on two levels.

First, the overall effects will be spread throughout the sub-region, because waste arises almost everywhere, waste transport will occur throughout the West of England and some of the impacts of recycling, recovery and disposal activities will be widespread and borne by all. In this case, the relevant sustainability characteristics are those set out in the baseline above and in *Annex A*.

On another level, some of the effects of the management of waste will occur in the vicinity of waste management sites. There are 11 sites and two strategic areas which have been identified as appropriate for residual waste management facilities under the JWCS, and in addition the JWCS allows for development on sites which have not been identified.

As part of the site assessment work undertaken by ERM, each of these sites was assessed against a range of criteria, which cover a number of SA appraisal objectives. The results of that assessment are set out in a series of assessment reports (1) produced for the West of England Partnership by ERM. These site assessment reports were drawn on significantly in assessing the likely sustainability impacts of the JWCS. The sites were also appraised against a number of additional criteria to ensure full coverage of all relevant SA objectives.

1.1.5 Existing Problems Relevant to the JWCS

A number of problems (2) exist in the West of England which are relevant to the JWCS. These are summarised below and described in detail in the baseline in *Annex B*.

The West of England generally compares favourably to the England average for recycling municipal solid waste, although 59% of municipal solid waste was still landfilled in 2007/08. Commercial/industrial and

(1) Detailed Site Assessment Report: Final Report, ERM, January 2008; Detailed Site Assessment Final Report, ERM, June 2008; Revised Detailed Site Assessment Report Final Report, ERM, June 2009; Additional Site Assessments Following Progress Update, ERM, Aug

(2) The SEA Directive requires the report to identify relevant problems.

construction/demolition waste are each larger waste streams than the municipal solid waste stream. 10%of C&D waste was landfilled in 2000/01, but there is no reliable data on C&I waste.

In the last 10 years traffic has grown faster than the national average, with high levels of car ownership. Congestion is a major issue in the region on the motorway network and in the city centres.

Air quality is generally good throughout the sub-region, although there are some areas of poor air quality, largely due to transport emissions.

The West of England has relatively low amounts of identified previously developed land and derelict buildings, with most occurring in Bristol and North Somerset. Almost half of the sub-region is designated as green belt.

There are very significant areas of the West of England that are subject to flood risk, especially large parts of Bristol, South Gloucestershire and North Somerset.

The South West has a number of pressures on regional water resources, including housing demand, economic development and climate change. Without increases in water efficiency, the supply-demand balance is predicted to go into deficit in the West of England area by 2024/25 with the levels of housing growth planned under the draft Regional Spatial Strategy[1].

Economic productivity in the West of England is high; 15% above the average for the UK[2].

The West of England contains or is near to some areas which are designated as internationally important, including Special Protection Areas and Special Areas of Conservation designated pursuant to Directives 79/409/EEC (3) and 92/43/EEC (4). The sites are all subject to pressures, most notably physical loss and damage, disturbance from human presence and activities and changes in water table levels. All bar two of the sites or strategic areas identified as suitable for residual waste treatment are near to one or more of these designated areas. A Habitats Regulations Assessment incorporating Appropriate Assessment has been undertaken to determine the impacts that waste-related development at the sites may have on internationally-designated sites.

1.1.6 Taking Account of Relevant Sustainable Development Objectives

A long list of international, national, regional and local level policy documents was considered to assess each one's relevance to sustainable development,

(1) [1] Housing Growth and Water Supply in the South West of England 2005-2030 Supplementary Report, Environment Agency, January 2006

(2) [2] Regional GVA December 2008, National Statistics, http://www.statistics.gov.uk/statbase/Product.asp?vlnk=14650

(3) Directive 79/409/EEC on the conservation of wild birds

(4) Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora

and particularly in the context of the scope of the JWCS. The list of the documents considered and those reviewed is given in *Annex A*.
The review identified the key sustainable development policy objectives contained in each document, and *Table 5.1* sets out the environmental, economic and social objectives which were identified. These objectives set the policy context for the JWCS and with which it must conform. They were used by the SA as a framework against which to assess the likely environmental and sustainability effects of the JWCS. The review also identified any relevant targets which have been set.

The sustainability baseline data was also analysed to identify the key sustainability issues in the West of England which are relevant to the JWCS. The list of sustainable development objectives was then reviewed to ensure that all key issues would be covered by the appraisal framework and therefore that the JWCS would be appraised for its effect on these issues.

1.1.7 The Likely Significant Effects of the JWCS

The results of the assessment of the individual policies of the JWCS have been drawn together to make an assessment of the overall effects of the JWCS as a whole, in light of the appraisal of the strategic objectives for the JWCS (see *Section 6*), the appraisal of the individual sites which are identified (*Annex F*) and the appraisal of the spatial strategy (see *Section 7*). *Table 1.2* sets out the results of this synthesis, and draws conclusions about the likely significant overall effects of the JWCS taken as a whole.

Table 1.2 Summary of Likely Significant Effects of JWCS

SD policy objectives	**Likely Significant Effects**	
Health & Well-being		
To protect amenity	+	Effects on amenity, including from congestion, will be avoided or minimised. However, several of the identified sites/areas have the potential for amenity effects on nearby residents and to add to existing or predicted future congestion. Mitigation is recommended for individual sites.
Economic Development		
To promote sustainable economic development	+	Enabling waste-related development in the sub-region will support the waste sector in establishing new economic activity in the sub-region in more sustainable methods of managing waste.
Climate Change		
To increase energy efficiency	+	Energy recovery and use of CHP are promoted, and identified sites within the JWCS offer potential for use of CHP.
To increase renewable energy use	+	The JWCS supports renewable energy generation where practicable, through the capture and use of methane for energy generation and the recovery of energy from residual treatment facilities which in some cases may be renewable depending on the technology used.
To reduce greenhouse gas emissions	+	Implementation of the waste hierarchy will help to reduce emissions of greenhouse gases through greater resource efficiency, reduced landfill emissions and managing waste more locally. The spatial

SD policy objectives	Likely Significant Effects	
		strategy for residual sites minimises waste transport emissions by treating waste close to the source of arisings. The JWCS explicitly requires minimisation of greenhouse gas emissions.
To reduce the effects of climate change on development and vice versa	+	The JWCS requires the risk of flooding to be taken into account and minimised or avoided, and for development to be adaptable to climate change.
Development & Planning		
To promote community responsibility for waste	+	By enabling the development of waste management, the JWCS will allow the West of England to take greater responsibility for the waste it generates.
To minimise flood risk	+	Although many of the identified sites/areas are within areas of flood risk, mitigation is recommended to address potential effects. In addition, the JWCS requires the risk of flooding to be minimised or avoided, and sustainable drainage is promoted.
Sustainable Communities		
To promote public awareness, information and participation	+	The JWCS directly seeks to encourage the public to adopt more sustainable behaviour.
To take account of the impact of development on communities	+	The JWCS requires the risk of impacts on residential amenity to be taken into account and minimised or avoided. Some of the identified sites are near to residential areas and have the potential for impacts on communities, and mitigation is recommended for individual sites in order to avoid or minimise the risks.
Biodiversity & Landscapes		
To conserve and enhance biodiversity	?	Waste operations have potential for affecting biodiversity through construction and operation of facilities, although the significance of any impacts will depend on standards of design, construction and operation. All but one of the identified sites are near to, within or contain designated nature conservation areas and have the potential for adverse effects. Although these are required by the JWCS to be minimised or avoided, it is possible for some sites that value will be lost.
To protect landscape	?/+	Development of facilities has potential for effects on landscape, although the significance of effects depends on the exact nature of any development. Some of the identified sites are near to designated landscapes or contain designated features, although effects are required to be minimised or avoided.
To promote good design	+	The JWCS requires a high standard of design and to minimise visual impacts. Sustainable construction is promoted.
Transport		
To reduce the impact of transport	+	By enabling the development of facilities, the JWCS will help to promote the management of waste close to the source of arisings. Waste transport will also be minimised by co-locating with other waste operations, and by promoting development within any adopted urban extensions. The spatial strategy minimises waste transport distances and is specifically designed to be near to the

SD policy objectives	Likely Significant Effects	
		sources of arisings. However, all of the identified sites have the potential to increase congestion through development. The scale of the effects will vary with a number of factors which are currently uncertain and therefore their significance is unknown at this stage. The JWCS requires avoidance or minimisation of transport impacts including effects on congestion.
To promote alternatives to road transport	+	Alternatives to road transport of waste are actively promoted by the JWCS, and some of the identified sites offer potential opportunities for rail use.
Natural Resources & Waste		
To protect and improve water quality	+	By enabling development of wastewater treatment facilities and requiring long-term aftercare of landfill sites, the JWCS will help to protect and improve water quality.
To protect and improve air quality	?/+	Adverse cumulative effects on local air quality are possible from emissions from facilities and from vehicles, although the likelihood and significance of effects depend on the nature and scale of any proposed development. However, the JWCS requires avoidance or minimisation of atmospheric pollution.
To reduce the inefficient use of resources	+	The JWCS has a strong emphasis on increasing resource efficiency, through implementation of the waste hierarchy. In addition, sustainable construction in waste developments and other developments is promoted which will help to reduce resource use.
To conserve and improve land and soil quality	+	The JWCS explicitly seeks to ensure landfill/landraise facilitates the improvement of land quality including damaged and disturbed land and to protect the best quality agricultural land.
To make good use of previously developed land and buildings and minimise greenfield development	+	By encouraging development of facilities on previously developed land, the JWCS is likely to help reduce the pressure for greenfield development and bring vacant and underused previously developed land back into beneficial use. Use of previously developed land is also a priority in the JWCS strategic objectives.
To optimise use of urban land	+	By promoting development of facilities within any adopted urban extensions, the JWCS will help to concentrate facilities in urban areas. The JWCS encourages facilities to be in or near to urban areas through its strategic objectives.
To promote the waste hierarchy	+	The JWCS emphasises moving waste management up the waste hierarchy, which is a theme running through all policies where relevant.
Business and Work		
To improve local authority waste management and procurement practice	+	The JWCS explicitly commits to more sustainable procurement by local authorities to prevent the generation of waste, and will help to promote more sustainable waste management by local authorities more broadly through the commitment to lead by example in waste prevention.
Culture &		

SD policy objectives	Likely Significant Effects	
Heritage		
To protect the built and historic environment	?/+	Two of the identified sites/areas have potential to affect historic assets, although development management policy requires minimisation or avoidance of impacts.
To protect high quality or valued open spaces	+/-	The JWCS gives protection to open spaces, and safeguarding sites will help to reduce the likelihood of future loss to waste development. Two of the identified sites/areas are likely to result in loss of open space although the JWCS requires this to be compensated for.

1.1.8 Selecting Alternatives

In developing the JWCS, a number of alternative options have been considered at various stages in the process, specifically at the Issues and Options stage and Preferred Options stage. At each of these stages, the SA has appraised the options which have been proposed, and also included some additional options which could reasonably be considered.

The approach taken in the Submission JWCS has been developed from the various areas of policy for the JWCS that were set out in the Preferred Options document. This in turn was developed from the options set out in the Issues and Options consultation (1). The JWCS has also built on the outcome of public consultation exercises.

Spatial Options

In particular, the JWCS has taken a strategic approach to the selection of sites for residual waste treatment. In developing the JWCS, consideration has been given to several spatial options for such an approach, in terms of the number and distribution of facilities which could be planned in order to deliver the required capacity for residual waste treatment (a total of 800,000 tonnes per annum). The options take either a concentrated approach to the distribution of facilities, or a dispersed approach, or a combination of the two.

A preferred option for the spatial strategy, the combined approach, was selected and published in the Preferred Options consultation document and based on the sites which had been identified at that time. Since the publication of that document, a number of changes have been made to the list of identified sites, with some sites having been withdrawn and new sites added to the list. In addition, two strategic areas have been identified as suitable for accommodating a residual waste management facility although a specific site within each area is not identified. In view of these changes, it is

(1) Issues and Options: A Consultation Document to Develop a Waste Management and Planning Strategy for the West of England, West of England Unitary Authorities, January 2007

considered appropriate to re-appraise the spatial options in order to test the robustness of the choice of preferred option for the spatial strategy. The following options are considered in order to meet the capacity requirements in the longer term:

Table 1.3 Site Options

Option		No of facilities	Individual capacities (tpa)
A1	Concentrated	2	400,000
A2	Concentrated 2	2	400,000
B	Dispersed	8	100,000
C	Combination	1	390,000
		1	150,000
		2	100,000
		1	60,000
C2	Combination 2	2	195,000
		1	150,000
		2	100,000
		1	60,000

1.1.9 Outcome of Options Appraisal

The overall conclusion of the SA is that option C provides the most sustainability benefits overall. Along with options B and C2, option C minimises waste transport by having a fairly dispersed configuration of sites, which thereby enables the minimisation of energy consumption, greenhouse gas emissions and other emissions from waste transport. Option C also captures other benefits arising from economies of scale by including one large-scale facility and with C2 shows the greatest potential for use of Combined Heat and Power.

In terms of impacts which are site-specific, it can be generally concluded that the more sites that are required, the more potential there is for site-specific adverse effects. Therefore options A1 and A2 tend to perform best in relation to these types of criteria. The picture is less clear for options B, C and C2 in relation to site-specific impacts, with their relative performance varying according to the type of impact and depending on the particular combination of sites likely to be developed. However, it is not possible to be certain about the likely impacts of option B, because insufficient sites have yet been identified to deliver that option. It is possible that any as yet unidentified sites could have additional adverse impacts for some site-specific effects.

1.1.10 Mitigation of Effects

One recommendation is made for amendment to the policy to improve clarity. Sustainable design and construction is promoted in policy 1 on waste prevention. However, the issues for waste development are much broader than waste prevention, for example incorporating issues of energy and water efficiency. To ensure greater clarity and sufficient emphasis on these other

aspects of sustainable design and construction, the policy requirement should also be incorporated into policy 12.

Annex F identifies potential effects arising from development at the specific sites or strategic areas listed in policy 5. It also makes a series of recommendations for mitigation of these effects which should be taken into account in developing the sites. Some of these recommendations are reflected in the Key Development Criteria for individual sites set out in the JWCS, although others are not. Without this mitigation, the potential for adverse effects from development of the sites will be increased.

Measures are also recommended in order to deal with effects outside the scope of the JWCS, including in relation to predicted cumulative effects:

- The Partnership should take steps to improve the evidence base on future waste arisings, particularly taking into account expected levels of growth and development in sub-region and where possible improving data on C&I and C&D waste arisings.

- The Partnership authorities should press for continuous improvement in waste minimisation measures in the sub-region, particularly through the Joint Residual Municipal Waste Management Strategy, and for a strong emphasis on resource efficiency in all relevant plans and strategies including those at regional level.

1.1.11 Uncertainties and Risks

The following are key areas where the likely impacts of the JWCS cannot be assessed due to a lack of data and other information to enable an assessment to be made:

- air quality;
- waste transport;
- costs of waste management activities;
- greenhouse gas emissions;
- biodiversity; and
- water resources.

Recommendations are made for collecting data as part of the monitoring regime to fill these gaps.

1.1.12 Monitoring Recommendations

The SA makes recommendations for monitoring, with suggested indicators to enable the Partnership authorities to monitor the likely significant impacts of the JWCS. This also includes a number of indicators to allow the Partnership authorities to identify unforeseen adverse effects in order to be able to take appropriate remedial action.

In addition, the SA has concluded that there are gaps in available data which are potentially significant for assessing the impact of the JWCS, and makes recommendations for filling those gaps. These are listed above in *Section 1.1.11*.

1.2 STATEMENT ON THE DIFFERENCE THE PROCESS HAS MADE

An iterative assessment of the emerging JWCS has provided the opportunity to make amendments and improvements throughout the process. The following changes have been made to the JWCS at various stages in the process as a result of the recommendations for mitigation made by the SA:

- Option C was selected as the preferred option for the spatial strategy as a direct result of recommendations made by the SA.

- The policy approach to non-inert landfill was changed from the preferred option, reflecting recommendations made by the SA.

- An objective has been added to highlight the importance of locating development in accordance with land use priorities, giving preference to urban land and brownfield land.

- In order to take account of climate change mitigation and adaptation, developers are required to address the following issues:
  - energy efficiency and energy recovery;
  - use of CHP;
  - greenhouse gas emissions;
  - flood risk and sustainable drainage;
  - good design and sustainable construction;
  - waste transport distances;
  - alternatives to road transport;
  - water consumption.

- Developers are required to avoid adverse impacts on:
  - Communities and amenity;
  - geodiversity;
  - wildlife;
  - landscape and visual;
  - air quality;
  - the built and historic environment generally, including Conservation Areas; and
  - open spaces, particularly the countryside and valued spaces including recreational space.

- Developers are required to avoid adverse impacts of development and include appropriate mitigation or compensation.

- Waste minimisation measures include a requirement for provision of on-site recycling facilities in new developments.

- Development management policy has been amended to require developers to:
  - broaden the consideration of biodiversity impacts to include biodiversity which is at some distance from the development site;
  - consider efficient water management within plant;
  - undertake a feasibility study for use of CHP;
  - incorporate measures to minimise greenhouse gas emissions;
  - consider sustainable drainage measures;
  - consider impacts on all types of historic asset; and
  - address impacts on congestion.

- Policy has been amended to include a requirement for sustainable construction of waste facilities;

- Locations are regarded as unacceptable in the green belt and on floodplains except in very special circumstances.

- Policy in relation to protection of groundwater has been clarified.

In addition to the above, at Preferred Options stage the SA emphasised the need for a Strategic Flood Risk Assessment and a Habitats Regulations Assessment to be undertaken and the conclusions fed into the development of the JWCS. These assessments were subsequently undertaken.

1.3 HOW TO COMMENT ON THE REPORT

Comments on any aspect of the Submission JWCS or this SA Report can be made by:

- emailing to wepconsultation@westofengland.org
- writing to West of England Partnership, Floor 1,Wilder House, Bristol BS2 8PH
- visiting the website at http://www.westofengland.org/waste/planning