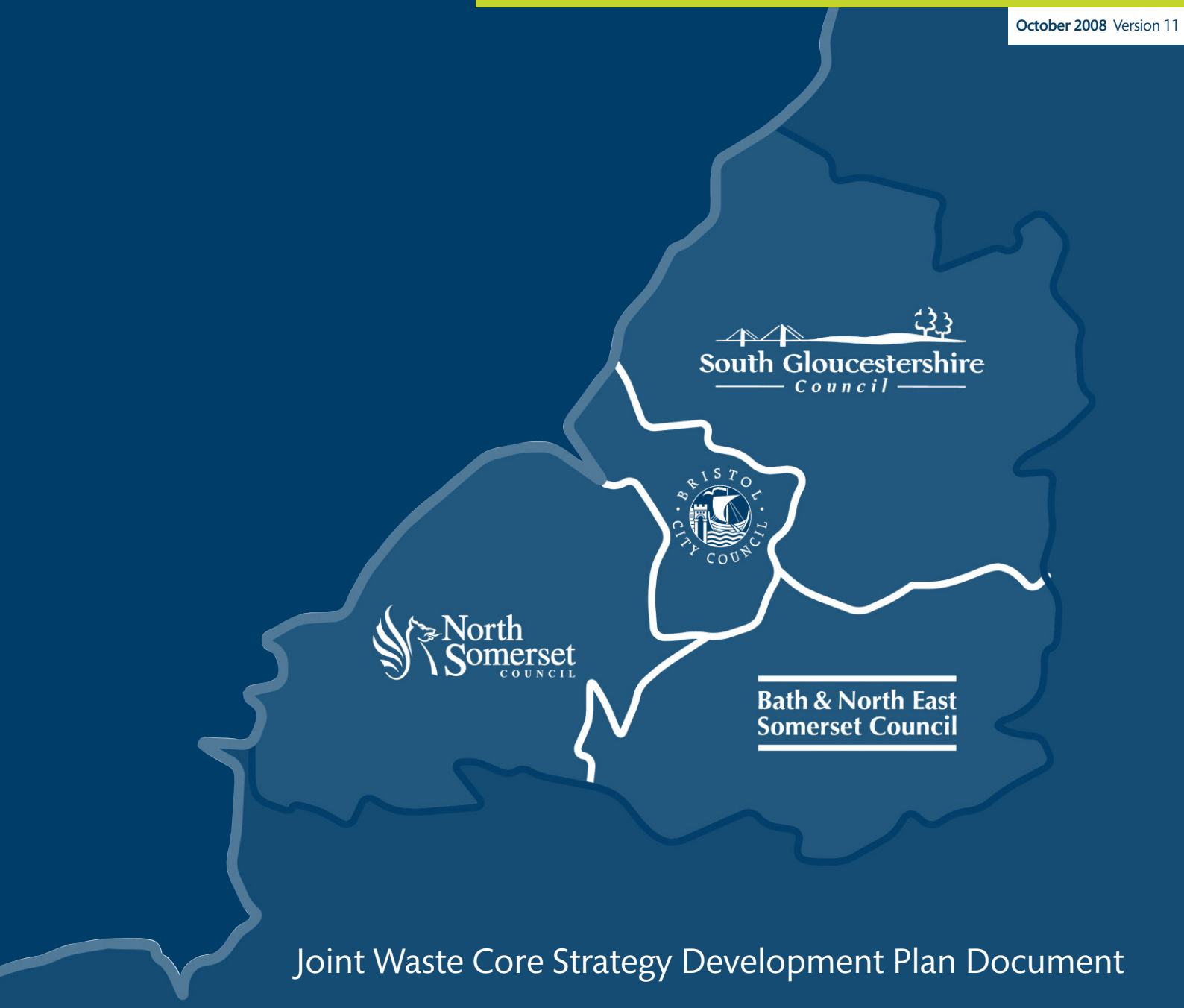
# Preferred Options

## Consultation Document

A development plan prepared by the West of England Unitary Authorities to deal with strategic waste planning issues

**October 2008** Version 11




Joint Waste Core Strategy Development Plan Document


South Gloucestershire
Council
BRISTOL
CITY COUNCIL
North
Somerset
COUNCIL
Bath & North East
Somerset Council

**A development plan is being prepared to set out the planning strategy for waste within the West of England and identify where the large-scale management facilities required by this strategy should be located.**

**The focus is on all types of waste and includes Municipal, Commercial, Industrial, Construction and Demolition wastes. It excludes waste water treatments and radioactive waste.**

Please also note that none of the sites listed in this document has been reserved for or allocated to any specific waste management technology.

They are indicated as being generally suitable for 'Recovery' – meaning a technology which can recover value of some sort from waste. A full definition can be found on page 20 paragraph 6.33.

In reality there are likely to be some technologies which are not appropriate or deliverable on the sites identified. This could be as a result of a range of issues including environmental and land ownership constraints.

# Contents



This document is supported by an Evidence Base, including:

- Sustainability Appraisal
- Habitats Regulations Assessment
- Strategic Flood Risk Assessment
- Site Identification and Assessment
- Consultation and Stakeholder Engagement

The West of England comprises Bath and North East Somerset, Bristol, North Somerset and South Gloucestershire.

# 1 Introduction

## Joint Waste Core Strategy

**1.1** A Development Plan Document is being prepared that will set out the planning strategy for waste within the West of England and identify where the large-scale waste management facilities required by this strategy should be located.

**1.2** This document will be referred to as the Joint Waste Core Strategy. It is being prepared by the four West of England unitary authorities of Bath & North East Somerset, Bristol, North Somerset and South Gloucestershire Councils.

**1.3** Each Unitary Authority is preparing a portfolio of planning documents (called the "Local Development Framework", LDF) and the Joint Waste Core Strategy will be part of each Authority's Local Development Framework. The various planning documents that each Authority prepares will therefore take account of the Joint Waste Core Strategy and, in turn, the Joint Waste Core Strategy will sit alongside the emerging Core Strategy of each Unitary Authority. When adopted, the Joint Waste Core Strategy will replace relevant strategic waste policies in current development plans. For more information on the content and range of documents that are due to be prepared by each Authority, please see their websites.

## What we've done so far...

**1.4** Consultation on an Issues and Options Document took place in early 2007 and this built on the 'awareness raising' exercise held in summer 2006.

**1.5** The consultation carried out so far has been undertaken jointly with the preparation of the Joint Residual Municipal Waste Management Strategy, which the four Unitary Authorities are jointly preparing to address the management of the municipal waste that is left after recycling and composting. Consultation has involved stakeholder workshops, public meetings and an industry day. A more detailed report on the Issues and Options consultation, as well as the Joint Waste Strategy, is available on the **www.rubbishorresource.co.uk** website.

## What you've told us so far about where large scale waste management facilities should be located and how they should be planned for.


**1.6** A large proportion of the comments raised by the public and stakeholders at the Issues and Options Stage concerned the following spatial planning issues:

- support the need to reduce 'waste miles' (the distance waste is transported); and
- a considerable majority were in favour of a large network of smaller localised facilities dispersed across the area;
- facilities that generate energy should be located near to where such energy can be used.

**1.7** Responses to the Issues and Options consultation have informed the approach to the Joint Waste Core Strategy.

## The Joint Waste Core Strategy Preferred Options Consultation Document

**1.8** This Preferred Options document builds on earlier consultation stages by taking account of consultation responses and promoting further discussion about the waste planning strategy and the preferred options for where new waste management facilities should be located. The focus is on all types of waste, other than waste water treatment and radioactive waste, and includes Municipal, Commercial and Industrial; and Construction and Demolition wastes.

## Sustainability Appraisal

**1.9** A Sustainability Appraisal (SA) incorporateing Strategic Environmental Assessment (SEA) will test how the Joint Waste Core Strategy contributes to sustainable development objectives. A Scoping Report was published in September 2006; an appraisal of the Issues and Options in January 2007, and a sustainability appraisal of the Preferred Options has been prepared to accompany this document. These are available on the **www.rubbishorresource.co.uk** website.

## Evidence Base

**1.10** Reports have been prepared to support and inform the preparation of the Joint Waste Core Strategy. This includes information on the current waste management situation in the West of England, future waste requirements, as well as matters that require further technical information and appraisals to help inform how and where future waste facilities should be located. Some of this work is in preparation, and includes the following documents:

- Sustainability Appraisal
- Habitats Regulations Assessment
- Strategic Flood Risk Assessments
- Site Identification and Assessment
- Waste Capacity Assessment
- Report on Consultation and Stakeholder Engagement

**1.11** When prepared, Evidence Base documents are made available on the following website: **www.rubbishorresource.co.uk**

## How to Comment

**1.12** It is important that you let us know what you think about the Preferred Options that are coloured purple throughout this consultation document.

**To contact us you can:**

Email us at:
**info@rubbishorresource.co.uk**

Write to us at:
**West of England Partnership,**
**Floor 1, Wilder House,**
**Bristol BS2 8PH**

Visit the website at:
**www.rubbishorresource.co.uk**

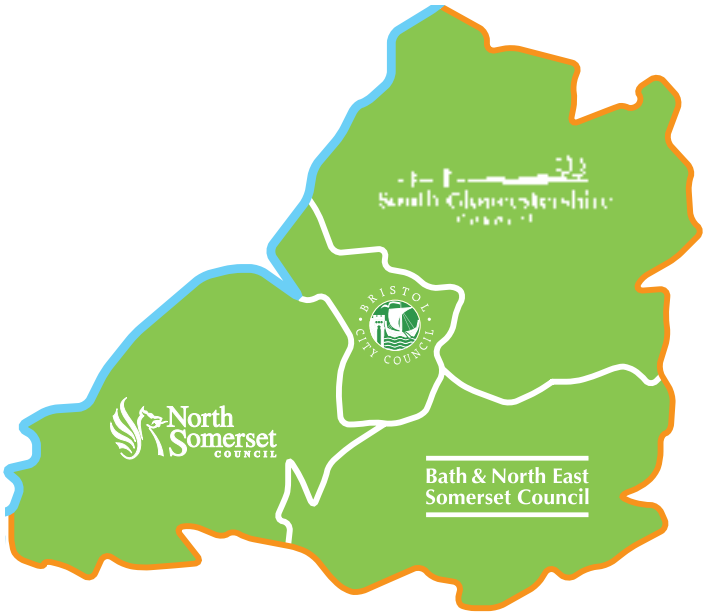
Further information on how to comment can be found at the end of this consultation document.

Following careful consideration of all representations received, the councils will prepare and publish the Joint Waste Core Strategy. There will be an opportunity to make formal representations on the "soundness" of the Joint Waste Core Strategy. The Joint Waste Core Strategy will be submitted to the Secretary of State following consideration of the responses on "soundness".

**1.13** This 'Preferred Options' consultation focuses on where waste treatment facilities could be located. It does not identify what types of waste treatment technologies may be built or operated from any particular site.

**1.14** If you would like to talk to an officer involved in the preparation of the Joint Waste Core Strategy, please call:

- Bristol City Council: **0117 903 6721**
- Bath & North East Somerset Council: **01225 477 548**
- South Gloucestershire Council: **01454 863 735**
- North Somerset Council: **01934 426 942**
- West of England Partnership: **0117 903 6865**




**1.15** In addition to inviting comments on the Joint Waste Core Strategy Preferred Options, a series of events have been arranged for the public and stakeholders. Details are available on the **www.rubbishorresource.co.uk** website.

**1.16** Copies of an Information Leaflet are available at council offices and from the **www.rubbishorresource.co.uk** website or by contacting the West of England Partnership Office.

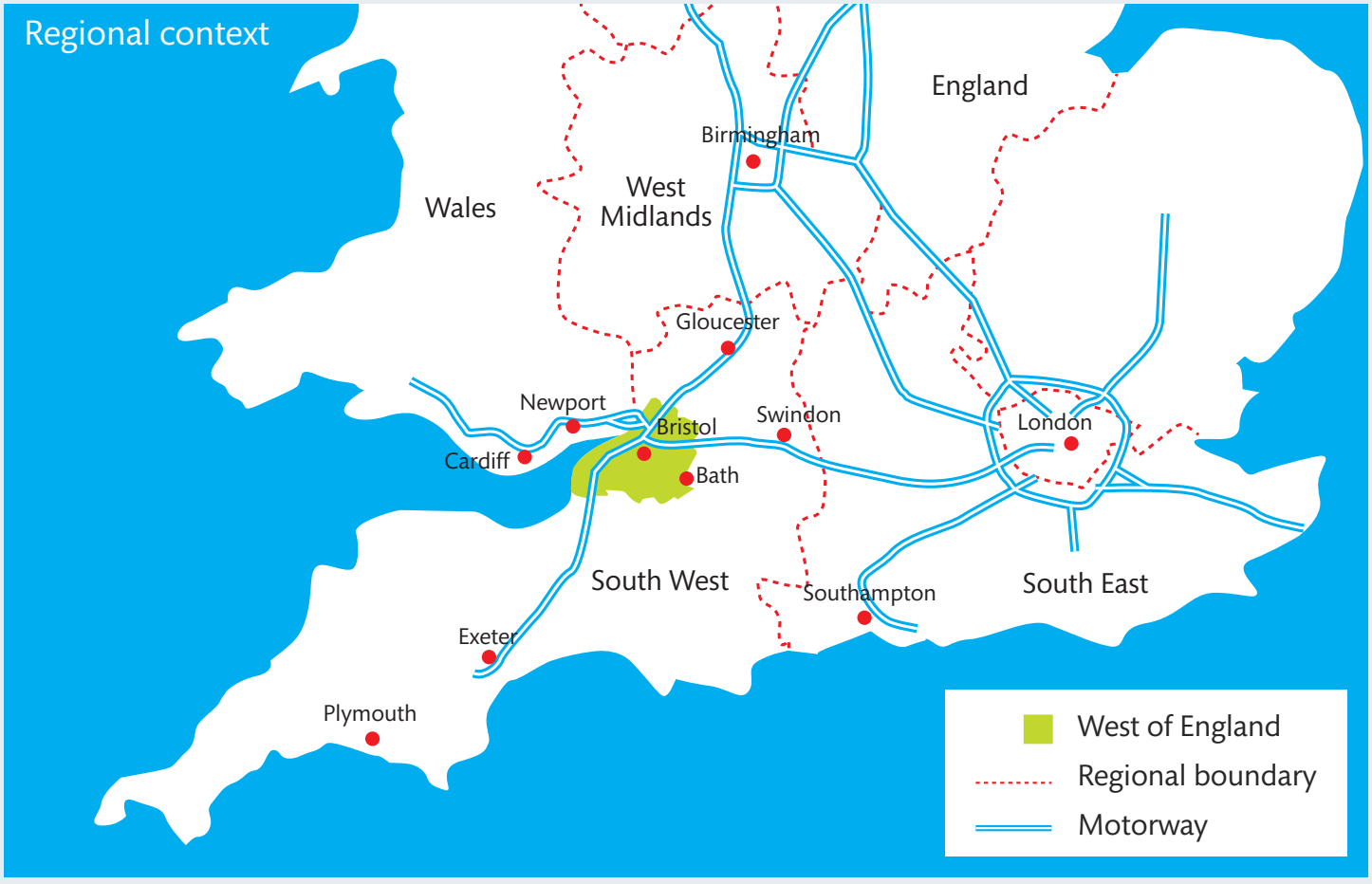
## Joint Waste Core Strategy: Key Stages

| | |
|---|---|
| **Ongoing** | Evidence gathering |
| **January/ March 2007** | Consultation on the Issues and Options **(Completed)** |
| **Spring/Summer 2007** | Consideration of representations received on the Issues and Options **(Completed)** |
| **October 2007/ September 2008** | Preparation of Preferred Options Consultation Document **(Completed)** |
| **October/ November 2008** | West of England Councils agree to publish a Preferred Options document for consultation |
| **January/ March 2009** | Consultation on the Preferred Options |
| **March/April 2009** | Consideration of the representations received on the Preferred Options consultation |
| **April/June 2009** | Preparation of the Submission Document |
| **November/ December 2009** | Representations sought on the soundness of the Joint Waste Core Strategy DPD |
| **January/July 2010** | Consideration of the representations received on the Published Submission Document and agree changes |
| **September 2010** | Submission of the Joint Waste Core Strategy to the Secretary of State |
| **September 2010/ August 2011** | Examination period |
| **September 2011** | Adoption of Joint Waste Core Strategy |

# 2 West of England – A Spatial Portrait

**2.1** The West of England consists of the four unitary authorities of Bath and North East Somerset, Bristol, North Somerset and South Gloucestershire. It has a population of just over 1 million, comprised of 436,000 households and an area of 133,244 hectares.

**2.2** The area is centred on Bristol (population 551,000 including the surrounding urban area), the largest urban area in the South West, complemented by Bath (population 90,000) and Weston-super-Mare (population 80,000). The remaining area is predominantly rural and contains the coastal towns of Clevedon and Portishead, the market towns of Nailsea, Norton Radstock, Keynsham, Yate and Thornbury and many villages.




**2.3** The area has good transport links being served by both the M4 and M5 motorways, mainline railway services, the Bristol International Airport and the Port of Bristol. The area also has a number of environmental designations including the international nature conservation sites on the Severn Estuary and the Mendip Hills; and national landscape designations on the Mendips and the Cotswolds. There is also a designated Green Belt around Bristol and Bath. Flooding is also an issue in the area, principally along the Severn Estuary. However, historically because of its port and motorway links, this part of the sub-region also contains significant

areas of employment.

**3.1** What we can do locally is limited by policies prepared at international level (e.g. European Union Directives), national level (e.g. Planning Policy Statements, National Waste Strategy) and at regional level through the Regional Spatial Strategy.

Related Plans and Strategies


**3.2** At a local level, the Joint Waste Core Strategy needs to 'join up' with the other plans and strategies of the four unitary authorities, which relate to the use and development of land for waste purposes. In particular, there needs to be close integration between the Joint Waste Core Strategy and the Core Strategies of the individual unitary authorities. This 'joining up' is necessary to ensure that we develop a cohesive approach and that our strategies are consistent and working in the same overall direction. The diagram above shows the local plans and strategies, which we think are the most relevant to the Joint Waste Core Strategy.

## European

**3.3** National waste management policy is heavily influenced by a number of European Directives. The aim of these Directives 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.

## National

**3.4** A system of tradable allowances (LATS) has been introduced to help the UK meet the requirements to divert biodegradable municipal waste away from landfill. The potential impact of LATS is significant and further information is included in the Joint Waste Strategy.

**3.5** The Waste Strategy for England 2007 includes targets and indicators for waste reduction, recycling and recovery. These are:

| | |
|---|---|
| **Household waste recycling:**<br>**2010: 40%**<br>**2015: 45%**<br>**2020: 50%** | **Municipal waste recovery:**<br>**2010: 53%**<br>**2015: 67%**<br>**2020: 75%** |
| **Household residual waste:**<br>**2010: 29% reduction**<br>**2015: 35% reduction**<br>**2020: 45% reduction from 2000 levels** | **Commercial and Industrial waste landfilled:**<br>**2010: expected 20% reduction from 2004 levels** |

A Joint Strategy designed to minimise the amount of waste that arises and increase recycling is being prepared by the West of England Councils. This, together with waste minimisation and recycling strategies prepared by each Unitary Authority will focus on achieving, and where practicable, improving on the targets relating to household waste.

**3.6** Planning Policy Statement 10 *Planning for Sustainable Waste Management* (PPS10), explains how the Government's objectives and decision-making principles will be applied in the planning system.

**3.7** Waste Planning Authorities are required to identify sites and areas suitable for new or enhanced waste management facilities for the waste management needs of their areas. They need to:

- take an integrated approach to waste management;
- move substantially away from landfill towards recycling, composting and energy from waste;
- 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.

**3.8** In assessing the suitability of an area or site. Waste planning authorities need to consider:

- opportunities for on-site management of waste where it arises, and
- a broad range of locations including industrial sites, looking for opportunities to co-locate facilities together and with complementary activities (reflecting the concepts of eco- parks or waste resource parks).

## Regional

**3.9** The Regional Spatial Strategy for the South West (RSS) will set out the broad development strategy for the region over the next 15-20 years. The draft RSS was the subject of an Examination in Public in spring/summer 2007, and a report from the externally appointed examining Panel was published in January 2008. Proposed Changes were published in July 2008. The Joint Waste Core Strategy will need to be in general conformity with the Regional Spatial Strategy.

**TABLE 1** **Total Indicative Waste Management Capacity Apportionments for Municipal and Commercial and Industrial Wastes ('000 tonnes)**

| Year | 2010 | 2013 | 2020 |
|---|---|---|---|
| **Recycling/compost** | **630** | **665** | **735** |
| **Recovery/treatment** | **260** | **585-600** | **760-775** |
| **Landfill** | **855** | **460-480** | **245-265** |

*Source: draft Regional Spatial Strategy*

**3.10** The draft Regional Spatial Strategy identifies managing waste as one of the greatest challenges facing the Region. It incorporates indicative apportionments for Municipal and Commercial and Industrial wastes to 2020. Table 1 takes the average apportionment figure for Industrial and Commercial waste and incorporates figures derived from work undertaken by Jacobs in preparing the Joint Waste Strategy.

**3.11** The draft Regional Spatial Strategy identifies a requirement for 92,500 houses within the West of England and 122,200 new jobs within the Bristol, Bath and Weston-super-Mare Travel to Work Areas by 2026. The Secretary of State's Proposed Changes to the draft Regional Spatial Strategy includes 117,350 additional houses in the West of England by 2026. The increased housing numbers will not affect levels of waste to be planned for. This significant amount of new development over the next 20 years will increase the number of houses, businesses, population and transport movements. If current trends in energy consumption from these activities continue without change then emissions will rise as a result, thus contributing to climate change. Reducing the need for energy, more efficient use of energy, alternative "renewable" energy sources, as well as more efficient technologies (e.g. combined heat and power) will all help to reduce greenhouse gas emissions and help to mitigate the potential impact on climate change.

**3.12** Waste minimisation, the integration of waste collection facilities and the provision of waste management facilities in new development can all contribute to reducing the need for energy. Energy from waste and landfill gas are two sources of heat generation which are classed as "renewable". The draft Regional Spatial Strategy sets down the following targets for renewable heat within the South West: "Renewable heat by 2010 100MW renewable heat generation in the South West, and by 2020 500MW".

## West of England Joint Residual Municipal Waste Management Strategy

**3.13** The Joint Residual Municipal Waste Management Strategy creates a framework for managing municipal residual waste generated in the West of England in a sustainable manner.

**3.14** The Joint Residual Municipal Waste Management Strategy responds to the imperative to reduce the amount of biodegradable waste being disposed of to landfill in accordance with the requirements of the European Landfill Directive.

**3.15** The Joint Residual Municipal Waste Management Strategy proposes a number of phases:

**Phase 1:** Immediate and ongoing Waste reduction and source segregation.

**Phase 2:** Starting in 2008/09, a treatment designed to meet the imminent Landfill Allowance Trading Scheme penalties.

**Phase 3:** A residual waste treatment facility with capacity of 160,000 tonnes per annum to meet Landfill Allowance Trading Scheme diversion targets to 2020. The aim is that this facility would be operational by 2015.

**Phase 4:** Longer-term treatment – beyond 2020. Procurement would commence once Phase 3 is implemented.

**3.16** Further information about the Joint Residual Municipal Waste Management Strategy is available on the **www.rubbishorresource.co.uk** website.

## West of England local Strategies

**3.17** In addition to Core Strategies, the following local strategies are relevant to the Joint Waste Core Strategy:

**Sustainable Community Strategies** – each Unitary Authority has a Community Strategy and some are in the process of producing a Sustainable Community Strategy. As part of setting the Vision for each Unitary Authority area, these strategies seek action to cut the consumption of resources, reduce waste, increase recycling, reduce greenhouse gas emissions and manage the causes of climate change.

**Climate Change Strategies** – both Bristol and South Gloucestershire Councils have strategies to tackle the causes of climate change, which include cutting greenhouse gas emissions, reducing waste and encouraging renewable energy development (including energy from waste).

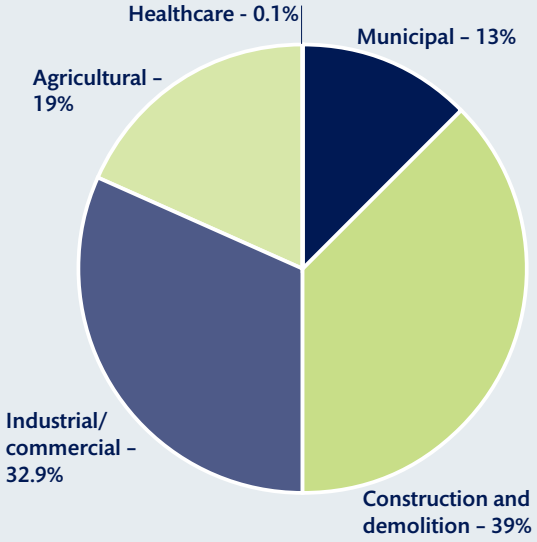
**Waste Strategies** – Bath & North East Somerset and North Somerset Councils have a Waste Strategy that seeks to raise waste awareness within the community, tackle waste growth and develop facilities to manage waste. South Gloucestershire Council have prepared a Draft Waste Strategy and Bristol City Council have prepared a draft Household Waste Strategy, dated 2001.

**Joint Local Transport Plan** – This includes a range of challenging targets to improve the quality and reliability of the West of England's transport network and reduce road casualties. Further information is available on the **www.westofengland.org** website.

# 4 Issues and Challenges

## Introduction

**4.1** The West of England generates about 1.1 million tonnes of household, industrial and commercial (non-inert) waste each year. Of this, approximately 618,000 tonnes still goes to landfill although less than 40% (235,000 tonnes) goes to sites in the West of England. The majority of the waste (383,000 tonnes) goes to sites in the adjoining counties of Gloucestershire, Wiltshire and Somerset, although Bristol and Bath & North East Somerset Councils export municipal waste by train to Calvert in Buckinghamshire.




Based on 2002 estimates, this illustrates the proportions of the types of waste generated within the West of England

**4.2** There are currently no strategic recovery facilities available in the West of England, and treatment and reprocessing facilities is for specialised waste only, so the remaining waste is either recycled or composted. The area has a well-established network of waste transfer/recycling stations, which serve both inert and non-inert wastes. But the area has limited facilities for composting of non-inert waste, so again these wastes are sent to facilities in adjoining counties. The specialised facilities, principally located at Avonmouth, handle a significant amount of waste imported into the West of England.

**4.3** The area also generates just over 900,000 tonnes a year of construction and demolition (inert) waste of which just over half goes to landfill, the majority to sites within the West of England. The balance is recycled through waste transfer stations in the area.

**4.4** From the spatial portrait (page 6), how waste is currently managed, and taking account of the draft Regional Spatial Strategy and local strategies, and also from earlier consultation, we have identified a number of issues concerning waste management that the Joint Waste Core Strategy will need to address.

## Changing waste management methods

**4.5** Current waste management methods within the West of England are moving away from landfill and considerable advances have been made in recent years on recycling and composting, particularly for municipal waste. However, further changes are needed to meet targets for diversion away from landfill, especially in developing recovery and treatment facilities. These targets are accompanied by heavy financial penalties under the Landfill Allowance Trading Scheme (LATS) where municipal waste targets are not met. There is therefore an imperative for the four Unitary Authorities to secure recovery facilities as soon as possible. The Joint Waste Core Strategy therefore must address the land use requirements resulting from national and regional policy on diversion from landfill.

## Reducing the impact of climate change

**4.6** Global warming for the last 50 years is largely man-made, caused by increases in the atmosphere of heat trapping gases such as carbon dioxide (CO2) and methane, mainly from the burning of coal, gas and oil for energy. If these "greenhouse" gases increase, less heat can escape back into space and the natural greenhouse effect is enhanced making the earth warmer and changing the global climate. We can expect a changing pattern of more extreme weather with increased severity and frequency of storms, floods and droughts.

Sea levels will also rise due to the melting of glaciers. Waste activities contribute to the CO2 emissions, principally from landfill gas emissions, but also through the transport and management of waste.

**4.7** The Core Strategies of the four unitary authorities will address climate change, but those aspects of reducing the need for energy, more efficient use of energy, alternative "renewable" energy sources, as well as more efficient technologies (e.g. combined heat and power) which are directly related to waste reduction and waste management will be addressed in the Joint Waste Core Strategy.

## Self-sufficiency or export?

**4.8** Currently over 60% of non-inert waste going to landfill is exported out of the West of England due to insufficient landfill void space. There is also a shortage of composting sites and no recovery facilities, other than for specialised wastes. While landfill capacity requirements will decrease as recovery and recycling tonnages increase to meet national and regional targets, there will still be a requirement for landfill voidspace, albeit a declining one. The Joint Waste Core Strategy must address the issue of non-inert landfill voidspace and whether continuing to export is a sustainable option when considered against the implications of $CO_2$ emissions from transporting the waste and the consequent impact on climate change.

## Identifying sites for recovery facilities

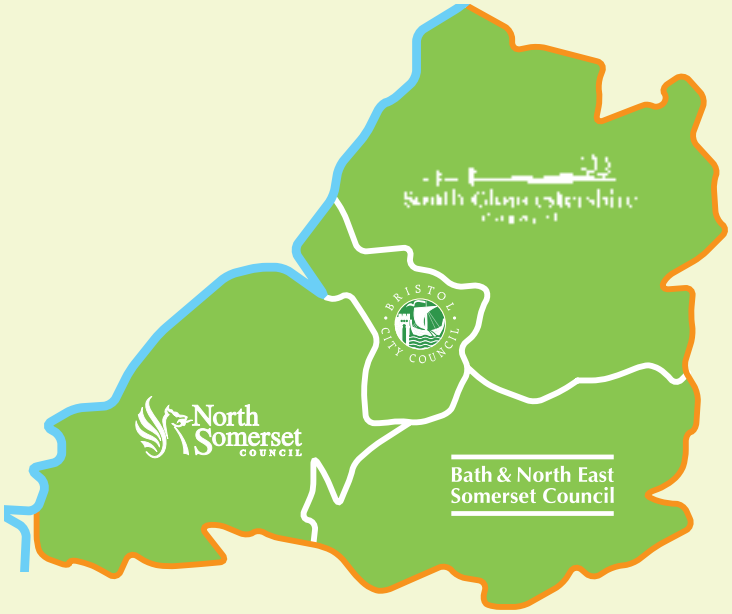
**4.9** The pattern of settlements within the West of England is not aligned with administrative boundaries and as a result, cross- boundary movements are commonplace. Recovery facilities are likely to result in significant flows of waste between Unitary Authority areas, unlike smaller facilities that serve a more limited catchment area. Consequently it is appropriate for the location of these types of facilities to be included in the Joint Waste Core Strategy as they are effectively "strategic".

## Defining the Strategy for individual Unitary Authorities

**4.10** While the Joint Waste Core Strategy sets out the overall strategy for waste there is a need to understand what this means in terms of "local" facilities and to meet the various waste management targets for waste to 2026. This can then be assessed against the existing distribution and capacity of waste facilities to identify the capacity gap.

**4.11** The capacity shortfall for these "local" facilities will need to be divided up between the four Unitary Authority areas, also taking into account where new development will be located, and a clear expression given as to the tonnages and facilities which will be needed in each Unitary Authority area. The Joint Waste Core Strategy will need to provide clear guidance to enable the authorities to make the requisite provision in their planning documents. Without this guidance there is a risk that the necessary provision may not be identified and delivered.

# 5 Vision and Aims




**5.1** The Vision for waste in the West of England will provide a picture of how the area should develop over the next 20 years to address the issues that have been identified. It will sit within the wider context of the vision for waste in the Regional Spatial Strategy and also be consistent with and complementary to the visions of the Core Strategies of the individual Unitary Authorities. The Vision will reflect the concerns and priorities that come through our engagement and consultation work.

## Vision

**By 2026, in the West of England, there will be:**

- **less waste going to landfill;**
- **an integrated network of waste management facilities to meet identified residual waste needs;**
- **less waste miles (reduction of the distances and/or volumes of waste transported); and**
- **substantial self-sufficiency in the management of waste generated in the sub region.**

**The commitment to "3 Rs" – reduce, recycle, recover, will continue.**

## Aims

**The Aims of the Joint Waste Core Strategy are:**

- **To identify sufficient sites to deliver an integrated network of waste management facilities, maximizing re-use, recycling and composting, then recovering further value from the remaining residual waste and only looking to landfill for the disposal of treated wastes;**
- **To enable sufficient and timely provision of waste management facilities to meet forecast sub-regional requirements;**
- **To encourage waste minimisation in new development;**
- **To encourage the provision of waste management facilities at appropriate locations having regard to the need to reduce the carbon footprint of waste management facilities;**
- **To take account of the development of environmental technologies in the processing of waste;**
- **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 brownfield land and urban land;**
- **To ensure everyone has access to waste management facilities.**

**6.1** The purpose of the Joint Waste Core Strategy is to provide the planning framework to enable the communities and businesses in the West of England to take responsibility for the waste they generate and implement a major change in how their waste is managed over the next 15 – 20 years.

**6.2** By 2020 the West of England will need to have annual capacity to manage the following quantities of waste set out in Table 2. The Non-Inert figures are taken from Table 1 and the Inert figures are taken from the Inert and Construction and Demolition waste table in Appendix C of the Regional Waste Strategy.

**TABLE 2 Indicative Annual Waste Management Capacity Targets for the West of England in 2020 ('000 tonnes)**

| | Non-Inert | Inert |
|---|---|---|
| **Recycling/compost** | **735** | **220** |
| **Recovery** | **775** | **N/A** |
| **Disposal (Landfill)** | **265** | **380** |

*Source: draft Regional Spatial Strategy, Joint Residual Municipal Waste Management Strategy, Jacobs 2006 and South West Regional Waste Strategy*

"Inert" waste is waste that is not active. It does not decompose or otherwise change.

"Non-inert" waste, on the other hand, is "active" waste. The degree of biodegradability varies by waste stream. For municipal solid waste, Defra has determined that it is 68%, i.e. that 32% is non-biodegradable. A formal definition of "inert waste" is included in The Landfill (England and Wales) Regulations 2002.

**6.3** In order to provide guidance to each Council in preparing their own waste planning policies it is proposed to break down the targets set out in *Table 2* in respect of inert waste and the recycling and composting of non-inert waste to each council area. This will be included in the "Published Submitted" version of the Joint Waste Core Strategy.

**6.4** The Joint Waste Core Strategy will only identify sites for the delivery of strategic facilities. These are the facilities which are central to the delivery of national policy for diverting waste from landfill and/or which are also likely to result in significant flows of waste between authorities, thereby justifying a strategic approach to their provision.

**6.5** The individual Unitary Authorities through their site allocation or other appropriate development plan documents will identify sites for other facilities. The Joint Waste Core Strategy will provide a framework for the selection of sites by the Unitary Authorities so as to ensure a consistency of approach across the West of England.

## Proposed waste framework policy areas

**6.6** The Joint Waste Core Strategy will be guided by a number of principles. This will include, for example, the waste capacity apportionment for the West of England. This is being established by the draft Regional Spatial Strategy and is based on the Regional Waste Strategy and the assumption that the area would be broadly self-sufficient in waste management capacity.

**6.7** The emerging Regional Spatial Strategy also requires new strategic waste management facilities to be in accordance with a sequential approach. Waste facilities should be located either within, on the edge, or in close proximity to Strategically Significant Cities and Towns (as defined in the draft Regional Spatial Strategy). The Joint Waste Core Strategy will need to apply this sequential approach in proposing sites to deliver its spatial strategy.

**6.8** 6.8 The general locations where waste development may be appropriate or inappropriate will also need to be established by the Joint Waste Core Strategy. Areas where waste development will need to be provided are within the identified extensions to the existing urban areas. In these new development areas it will be essential that the management of the waste these areas will generate is considered from the outset. For example, these new development areas offer the potential to introduce combined heat and power schemes to an extent that is not possible within existing developed areas. There will also be opportunities to locate small scale local facilities such as Household Waste Recycling Centres.

### Waste Capacity Apportionments

A breakdown of the West of England apportionments in the Regional Spatial Strategy for each Council area.

### Sub-Regional Self-Sufficiency

The longer term aim is to move towards self-sufficiency, recognising that there are limits to this in the short term, in accordance with the indicative capacity targets, subject to not delivering over-provision of disposal capacity.

### Proximity Principle

The Proposed Changes to the Regional Spatial Strategy recognise the need to plan for a minimisation of transport of waste. A distance of 16 km is regarded as an indicator of 'close proximity' to an urban area.

### General locations for Waste Development

The preferred positive locational criteria for waste development are:

- Brownfield/previously developed land and buildings;
- General industrial areas (B2/B8);
- Existing and former waste management sites; and
- Within and adjacent to urban areas/population centres,

where there is good access to the primary route network and, preferably, the opportunity for rail or waterway access.

### Urban Extensions

The draft Regional Spatial Strategy proposes a number of urban extensions in the West of England. In order to ensure the development of integrated waste management solutions to secure the sustainable management of waste arisings from the proposed urban extensions it is proposed that the urban extensions will become key priority areas of search for combined heat and power schemes. Opportunities for waste minimisation schemes and local recycling/ composting facilities should also be considered.

### Inappropriate Waste Locations

- Land allocated or proposed for other uses in Development Plans/Local Development Frameworks;
- Ancient woodland;
- Undeveloped coastal zone;
- Areas of Outstanding Natural Beauty;
- Groundwater Protection Zones;
- International and National Nature Conservation Sites;
- Scheduled Ancient Monuments;
- Grade 1 and 2* Listed Buildings, Historic Parks and Gardens.

### Other locations where waste development may be inappropriate

- Green Belt;
- Floodplains;
- Air Quality Management Areas;
- Local Nature Conservation/Landscape or Archaeological Designations/Conservation Areas/Registered Battlefields;
- Airport Safeguarding Zones;
- Major and minor aquifers;
- Greenfield sites;
- Sites remote from areas of need for facilities; and
- Sites at a distance from the primary route network.

### Safeguarding

If capacity is to be lost, planning proposals should demonstrate how it will be replaced or why it is no longer required and preventing other development limiting the long-term future of waste sites. Any proposed alternative site needs to demonstrate how it is a better option than the sites to be lost.

### Climate Change

To require new development to address impact on reduction and adaptation to climate change through:

- Energy efficiency and energy recovery;
- Use of Combined Heat and Power (CHP);
- Greenhouse gas emissions;
- Flood risk and sustainable drainage;
- Good design and sustainable construction;
- Waste transport distances;
- Alternatives to road transport; and
- Water consumption.

### Environmental Protection

A set of criteria to ensure waste development does not have a significant adverse effect on the following and includes appropriate mitigation or compensation:

- Communities;
- Highways and access;
- Air quality, including dust, pollutants and odour;
- Litter and vermin;
- Noise and vibration;
- Ground and surface water;
- Flooding;
- Water consumption;
- Climate change
- Lighting;
- Landscape and visual;
- Wildlife;
- Trees;
- Archaeology; and
- Land quality and geodiversity.

## Proposed Policy areas for waste facilities

**6.9** Reflecting the Waste Hierarchy the following sections describe the current position and sets out how we consider the Joint Waste Core Strategy should address the policy areas for:

**1: Waste Minimisation**
**2: Recycling and Composting**
**3: Recovery**
**4: Landfill**

The intention is to prepare policies for each of these issues for inclusion in the published version of the Joint Waste Core Strategy that is submitted to the Secretary of State.

## Waste Minimisation

### Policy 1

**The Proposed Policy for Waste Minimisation is:**

**To promote the use of Waste Audits, and to identify the types of developments for which waste audits would be applicable.**

**6.10** A clear view expressed to the Issues and Options Consultation was that waste minimisation has a vital role to play in the way we approach the management of waste and that more should be done to promote it. Waste minimisation is at the top of the Waste Hierarchy, which recognises the importance of "Reduce, Reuse and Recycle". However, waste growth is a difficult issue to tackle because the underlying reasons and drivers to its promotion are associated with issues of lifestyle and culture.

**6.11** The issue has a national, regional as well as a local dimension, and attention is focused on excessive packaging and excessive consumption. Cutting down on the amount of waste produced will have a direct and positive impact on climate change and support the objectives of the Core Strategies and other strategies of the Unitary Authorities that address climate change and reducing greenhouse gas emissions.

**6.12** Local planning authorities have relatively few powers to influence waste minimisation, and attention is focussed on promotion, education and the provision of services. The Waste Strategy for England 2007 sets out plans for waste prevention through a combination of legislation, education and incentives. As part of the Joint Waste Strategy, the Unitary Authorities will continue to actively promote waste minimisation, working to reduce the quantity of waste produced by encouraging the re-use of many materials that would otherwise have been disposed of to landfill. The Authorities have prepared a Joint Position Statement to improve the waste minimisation, reuse, recycling and composting activities of municipal waste.

**6.13** One area in which the Joint Waste Core Strategy could make a contribution to waste minimisation is to promote the reduction of waste in development. Although there are separate national regulations for the preparation of Site Waste Management Plans, the draft Regional Spatial Strategy promotes the use of Waste Audits for new development. This would provide information about the way in which, for example, top and sub-soils were to be handled as part of development, as well as providing information about the way in which waste generated during the operational life of the development would be dealt with and identify areas to be set aside for the storage of bins for re-use or recycling.

**6.14** In relation to hazardous waste, it is assumed that the relatively high cost of treatment acts as a sufficient driver to minimize its production.

## Recycling and Composting

### Policy 2

**The Proposed Policy for Recycling and Composting is:"**

**Inert waste recycling facilities –** support provision of facilities at existing mineral sites in addition to brownfield or industrial sites in urban or rural locations along with existing and former waste sites.

**Non-Inert material recycling/waste transfer facilities –** maintain existing provision on industrial/brownfield land with an acceptable access on to the primary route network.

**Household waste recycling centres –** support the provision of facilities to serve Bath, Bristol, the North Fringe part of the Bristol Urban Area and North Somerset.

**Open windrow composting –** support proposals for small scale on farm proposals.

**In-vessel composting facilities –** support location of these facilities on brownfield or industrial sites in urban or rural locations along with existing and former waste sites.

**6.15** This section considers the preferred strategy for the recycling and composting of inert and non-inert wastes over the plan period and the delivery of the following facilities:

- Recycled aggregate processing facilities;
- Household Waste Recycling Centres
- Material recycling/waste transfer stations; and
- Open windrow and in vessel composting facilities.

**6.16** Views expressed to the Issues and Options consultation were strongly in favour of recycling. This was supported by views encouraging producer responsibility, and on enabling waste to be dealt with locally, thereby reducing transport and greenhouse gas emissions. Recycling and composting facilities are generally smaller size facilities and this would support consultation responses in favour of a network of local facilities across the West of England.

**6.17** The existing and emerging Community Strategies of the Unitary Authorities, along with other local strategies, have a consistent theme running through them of maximising recycling so to reduce impact on climate change, "peak oil" and on our environment. Having regard to the latest information provided by the municipal waste management authorities and the Environment Agency the current situation can be broadly summarised as follows:

## Inert Waste

**6.18** Because of its low value inert material does not travel long distances and is generally managed within the West of England. It is important to avoid landfilling inert waste (eg. builders' rubble). Inert waste recycling facilities are generally located at existing mineral and waste sites and are linked to the life of the permission of the primary activity. Some of the commercial materials recycling facilities/waste transfer stations also have screens for removing inert material from the industrial and commercial waste stream, which is then sold on as recycled soil and aggregates.

**6.19** The preference is to use inert waste on-site. Inert waste arisings that cannot be dealt with where it arises should continue to go to recycling facilities that are located within the West of England. No major capacity gap issues were identified during the Issues and Options consultation but it is important that each Council maintains capacity particularly as permissions for these facilities are often temporary so the situation can change.

## Non-Inert Waste

**6.20** There is an existing, well-established network of material recycling/waste transfer stations in the area and this should be maintained. However the need for additional/ replacement household waste recycling centres has been identified in each Unitary Authority area and there is a major capacity gap in respect of all types of composting facilities.

**6.21** Currently (2005/6), 160,000 tonnes a year of municipal waste from the West of England is being recycled and composted. However, not all of this waste is being composted within the West of England and it is estimated that in the region of 30,000 tonnes of waste is exported for treatment. Current capacity for recycling municipal recycling/composting waste is estimated at 130,000 tonnes per annum.

**6.22** There is an estimated (2005/6) 460,000 tonnes per annum of recycling capacity within the West of England for industrial and commercial waste. The proposed capacity targets in the Issues and Options report were not challenged and these are therefore used to confirm the capacity gap for recycling and composting facilities within the West of England, see *Table 3*. The capacity targets for 2010, 2013 and 2020 have been taken from the top row of *Table 1*.

**6.23** The Capacity Gap has been estimated from the analysis of recycling / transfer figures for Municipal Solid Waste returns for 2005/6 and the capacity figures for industrial and commercial waste data provided by the Environment Agency on the maximum recorded annual throughputs of material over the five year period 2000–2005. For the purposes of calculating recycling capacity it has been estimated that 50% of the maximum throughput could be recycled.

**TABLE 3** Capacity Targets for Recycling and Composting Facilities in the West of England ('000 tonnes)

| | 2005/6 (existing) | 2010 | 2013 | 2020 |
|---|---|---|---|---|
| **Capacity Targets** | **590** | **630** | **665** | **735** |
| **Capacity Gap** | **N/A** | **40** | **75** | **145** |

*Source: draft Regional Spatial Strategy, South West Regional Assembly and Joint Residual Municipal Waste Management Strategy, Jacobs 2006*

**TABLE 4** Provision of Recycling/Composting Facilities

| | Material Recycling/ waste transfer facilities | Household Waste Recycling Centres | Composting facilities (tonnes per annum (tpa)) | Capacity to be provided by 2020 (tpa) |
|---|---|---|---|---|
| Bath and North East Somerset | Maintenance of existing facilities and provision of MRF/ WTS to deal with industrial and commercial waste arisings in Bath of 25,000 tpa capacity by 2020. | Replacement for Bath HWRC by 2011 | New in-vessel composting facility of 30,000 tpa required by 2020 | 55,000 |
| Bristol | Maintenance of existing facilities with replacement if existing facilities lost to re-development | Replacement facility for Bristol | Development of existing or new in- vessel composting facility of 30,000 tpa required by 2010 | 30,000 |
| North Somerset | Maintenance of existing facilities with replacement if existing facilities are lost to re-development | Replacement facility for Weston -super-Mare | New in-vessel composting facility of 30,000 tpa required by 2020 | 30,000 |
| South Gloucester-shire | Maintenance of existing facilities with replacement if existing facilities lost to re-development | Facility required in North Fringe area | New in-vessel composting facility of 30,000 tpa required by 2010 | 30,000 |

**6.24** Because of the large industrial and commercial recycling capacity within Bristol these capacity gaps disguise a shortfall in composting capacity for municipal waste, which is currently estimated at requiring a further capacity for 60,000 tonnes per annum by 2010.

**6.25** The facilities required to deliver these targets are considered to be local ones, the precise location of which is best determined at the individual Council level in the individual Unitary Authority site allocations development plan documents. Therefore the capacity targets set out in *Table 3* have been broken down into the facilities it is considered that each Unitary Authority will need to deliver by 2020. See *Table 4*.

**6.26** It is proposed that the Joint Waste Core Strategy provides broad strategic guidance on the appropriate locations for delivering the facilities that are required.

## Material Recycling/Transfer Facilities

**6.27** The West of England has an existing, well-established network of material recycling/transfer stations that are currently meeting the needs of the area. It is therefore important that this network is maintained and if capacity is lost that it is replaced. Appropriate locations for these facilities are considered to be on industrial or brownfield land within or close to the urban areas that they serve with an acceptable access on to the primary route network.

## Household Waste Recycling Centres

**6.28** There is an existing, established network of Household Waste Recycling Centres serving the West of England. However, the need for replacement facilities in Bath, Bristol, the North Fringe part of the Bristol Urban Area and North Somerset were identified in the Issues and Options report. These facilities have particular locational requirements because they are public facilities that generate high numbers of visits.

**6.29** Appropriate locations for these facilities are considered to be on industrial/brownfield land within or close to the urban areas that they serve with an acceptable access on to the local highway network. Sites should not generate significant cross city/town traffic flows and sites within the Green Belt around urban areas may be appropriate if there are no alternative available sites within the urban area. Urban extensions may provide locational opportunities.

## Composting Facilities

**6.30** There is a limited amount of open windrow composting capacity for garden waste available in the West of England and there are currently no operational in-vessel composting facilities in the West of England. There is an urgent need for the delivery of new composting capacity in order to meet the needs of the area from 2010 onwards.

**6.31** Existing larger scale open windrow composting sites have the potential to generate odour and as such any large scale (in excess of 500 tonnes of material on site at any one time) open composting facility should be well separated from residential properties. Smaller scale on-farm composting facilities where there is no more than 500 tonnes of material on site at any one time and where the compost is used on the farm generally have lower impacts.

**6.32** Where it is proposed to compost food waste an enclosed (in-vessel) form of composting is required. Facilities that are fully enclosed may be acceptable on industrial/brownfield land within urban areas; however as the compost output from these facilities is primarily applied to agricultural land there may be advantages in locating facilities within rural areas. Therefore, suitable brownfield and industrial land in urban and rural locations may be considered acceptable along with existing and former waste sites in order to deliver the required new capacity needed to achieve the local and regional targets for composting.

# Recovery

### Policy 3

**The proposed policy for Recovery is:**

**To identify suitable sites at North West Bristol, elsewhere in Bristol, Weston-super-Mare, Keynsham and Yate.**

**6.33** Recovery is the process of extracting a product of value from waste materials, including recycling, composting and energy recovery. These facilities can generate renewable heat, and thereby contribute to energy efficiency and reducing the impact of climate change. They can also make a contribution towards the regional targets set out in the draft Regional Spatial Strategy for renewable heat generation. Both Bristol's Climate Protection and Sustainable Energy Strategy 2004/6 and the South Gloucestershire Climate Change & Strategy Action Plan 2006 encourage energy generation from renewable sources (in this case waste).

**6.34** As set out in *Table 2* there is an annual target for almost 800,000 tonnes of waste to be managed through recovery facilities by 2020, and there are no such facilities currently operational in the West of England. In order that the Joint Waste Core Strategy may identify sites for strategic recovery facilities, an extensive search has been undertaken to identify such sites (the methodology and site search are detailed in the ERM/SLR study). The sites identified in *Table 5* are considered to be appropriate for development of a strategic waste management facility, which includes a range of technologies. Subject to further assessment, these sites may be suitable locations for emerging technologies or merchant facilities.

## TABLE 5 Potential Strategic Waste Management Site

| Site No. | Council Area | Site Name | Site Area | Notes/issues to consider |
|---|---|---|---|---|
| 1 | B&NES | Welton Sewage Works | 12.02 ha | Existing general development area. High standard of design required, particularly avoiding a stack. |
| 2 | B&NES | Broadmead, Keynsham | 4.49 ha | Undeveloped site, identified for an integrated waste management facility or "Environment Park". Need to improve site access. |
| 3 | Bristol | Sevalco Plant (northern part), Severn Road, Avonmouth | 11.07 ha | Allocated as Primarily Industrial and Warehousing Area. Deliverability. Likely requirement for land remediation. Flood Zone 3. |
| 4 | Bristol | Merebank, Kingsweston Lane, Avonmouth | 30.89 ha | Allocated as Primarily Industrial and Warehousing Area. Likely requirement for land remediation. Flood Zone 3. |
| 5 | Bristol | Rhodia Chemical Works, Kingsweston Lane, Avonmouth | 23.34 ha | Allocated as Primarily Industrial and Warehousing Area. Deliverability. Likely requirement for land remediation. Flood Zone 3 |
| 6 | Bristol | Gypsy and Traveller Site, Kingsweston Lane, Avonmouth | 2.53 ha | The site is currently a purpose-built Gypsy / Traveller site with in-site facilities. Deliverability. Flood Zone 3. This should be regarded as a longer term option subject to the relocation of the current use. |
| 7 | Bristol | BZL, Kingsweston Lane, Avonmouth | 46.20 ha | Allocated as Primarily Industrial and Warehousing Area. Deliverability. Likely requirement for land remediation. Flood Zone 3. |
| 8 | Bristol | Avonmouth Docks, St Andrews Road, Avonmouth | 201.9 ha | A substantially developed port with commercial and industrial uses. Allocated as Primarily Industrial and Warehousing Area. Deliverability. |
| 9 | Bristol | Diamonite Industrial Site, Fishponds | 15.01 ha | Allocated as Primarily Industrial and Warehousing Area. Deliverability. The local road network and site access. |
| 10 | Bristol | Hartcliffe Way – Refuse Destructor, Novers Hill | 2.20 ha | Allocated as Primarily Industrial and Warehousing Area. High standard of design required, particularly in regard to improved access |
| 11 | Bristol | Transport Depot, St Philips Marsh, Bristol | 0.99 ha | Allocated as Primarily Industrial and Warehousing Area. High standard of design required to reduce visual impact. Flood Zone 3. |
| 12 | Bristol | Land North of Severn Road (former fuel storage depot), Avonmouth | 3.32 ha | Allocated as Primarily Industrial and Warehousing Area. Likely requirement for flood remediation. Flood Zone 3. |
| 13 | N Somerset | Weston Business Park, Locking Moor Road | 4.54 ha | High standard of design required, particularly avoiding a stack. Flood Zone 3. |
| 14 | N Somerset | Land at Winterstoke Road/Weston Euro Park | 25.86 ha | High standard of design required as part of urban extension development. Flood Zone 3. |
| 15 | N Somerset | Land at Aisecombe Way, Weston-super-Mare | 1.78 ha | An undeveloped site adjacent to the Weston Transfer Station. Allocated as a safeguarded employment area. |
| 16 | South Glos | Filton Railway Triangle | 25.30 ha | Site used for C&D waste management. Deliverability. |
| 17 | South Glos | Land at Crooks Marsh, Hallen | 5.14 ha | Site is in use as a car storage facility. Pylons along north eastern side. Access improvements required. Deliverability. Flood Zone 3. |
| 18 | South Glos | Cribbs Causeway (land at the former Safeway Depot) | 15.84 ha | A substantial site with a large warehouse, which has been designated as a safeguarded employment area. Deliverability. |

## Spatial Options (Locations) for Recovery Facilities

**6.35** The Issues and Options Report identified three options for the delivery of the required recovery waste management infrastructure. These are:

- **Option A:** 2 recovery facilities at 400,000 tonnes per annum each;
- **Option B:** 8 recovery facilities at 100,000 tonnes per annum each; and
- **Option C:** a combination of Options A and B.

**6.36** The consultation representations received in response to the Issues and Options Report did not provide a clear steer of which option should be preferred. Some comments expressed a preference for smaller scale and more local facilities, although this was balanced by recognition that economies of scale are less beneficial with smaller facilities. It was also felt that a mixture of sites would be best, particularly given the geographical spread of the population that would also maximise flexibility. The spatial options presented within this consultation document consider the geographical spread of facilities across the West of England.

**6.37** In order to identify a preferred option, two levels of assessment were considered:

- the "deliverability" and 'technical' preference for each of the sites; and
- conclusions from the Sustainability Appraisal (SA) which has considered the spatial options more broadly.

These conclusions, supplemented by the Habitats Directive Assessment and Strategic Flood Risk Assessments, will enable the West of England Authorities to identify the preferred option and the sites necessary to deliver it. No choice about the method of technology has been made as part of the following options.

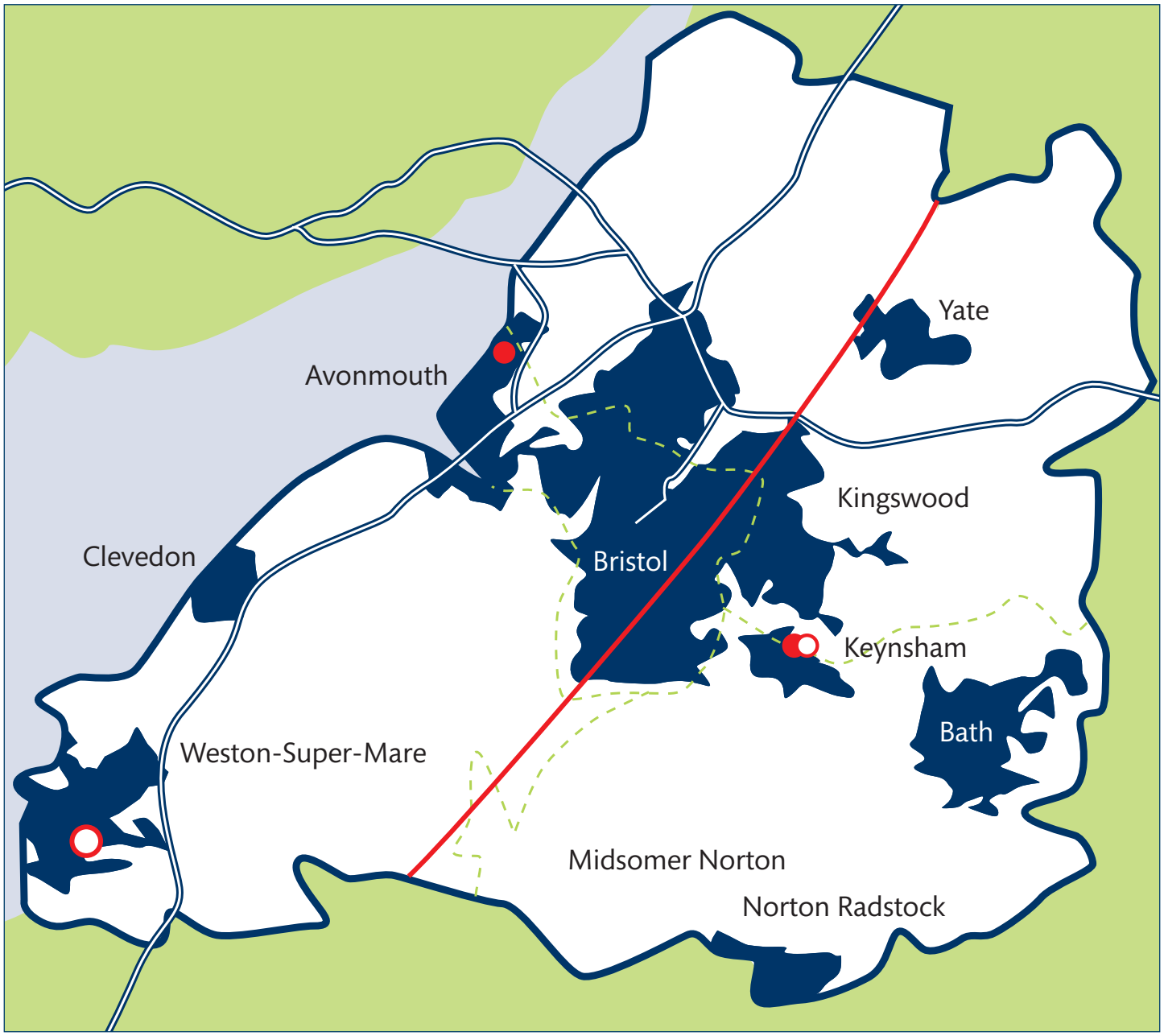
## Option A

**6.38** This option was developed in order to reflect both the major sources of waste arisings (predominantly Bristol, but also Bath and Weston-super-Mare) and recognises the practical elements of transporting waste throughout the West of England. There is a good, road based transport network operating to the north and south of Bristol, but this does not provide a comprehensive network within the city boundaries. It is reasonable to assume that waste related vehicles would not choose to pass through Bristol.

**6.39** This option is represented by a diagonal slice drawn through Bristol following the M32 and A38. In this way, it is possible to deliver one site to the north and one to the south of the City. This split also relates well to waste arisings within Bath (combined with arisings generated to the south of Bristol) and Weston-super-Mare (combined with arisings generated to the north of Bristol). The following maps illustrate two alternative ways of delivering Option A, described as "Scenario 1" and "Scenario 2". *Scenario 1* shows potential locations in Keynsham and North West Bristol and *Scenario 2* shows potential locations in Keynsham and Weston-super-Mare.

**6.40** It is not considered appropriate to split Bristol along the opposite diagonal axis. The City is split less equitably and the road network is less beneficial. Similar problems occur if the West of England is simply split vertically or horizontally.

## Option A Scenario 1 and Scenario 2




- Option A, Scenario 1 proposed sites (400,000tonnes per annum per site)
- Option A, Scenario 2 proposed sites (400,000tonnes per annum per site)
- Site divisions

## Sites considered suitable to deliver Option A

**6.41** Site 2 is considered the most appropriate site to represent the southern area of this option. Sites 9 and 1 are not on the primary road network and Site 1 is more remote meaning that waste would have to be transported longer distances.

**6.42** Possible sites to the north could be those situated in North West Bristol (Sites 8, 4, 7, 3, 5, 6, 12, 17), 18 at North Bristol (land at the former Safeway Depot, Cribbs Causeway) or 13 and 14 in Weston-super-Mare. Site 16 is not considered suitable to represent this spatial option, as it is not on the primary road network.

**6.43** Sites 11 and 10 have not been included as they are considered to be too centrally located at Inner and South Bristol and would result in the delivery of two strategic waste management facilities being located within close proximity to each other. This is not considered to usefully serve the geographical diversity of the West of England.

**6.44** Option A may be delivered through using Site 2 in conjunction with sites in either Bristol or Weston-super-Mare.

**6.45** Draft Regional Spatial Strategy Policy W2 requires the delivery of a waste management facility within 16 km of Bristol, Bath and Weston-super-Mare. This can be achieved through selecting Site 2 and any site within Weston-super-Mare. Both Site 2 and the North West Bristol sites are more than 16 km distant from Weston-super-Mare, meaning that the proposed draft RSS policy cannot be achieved using this site combination. However, selecting a site at Weston-super-Mare could result in the delivery of a facility that is less useful to treat waste arisings within North, North West and Inner Bristol. This would be a disadvantage as these areas generate the majority of waste arisings.

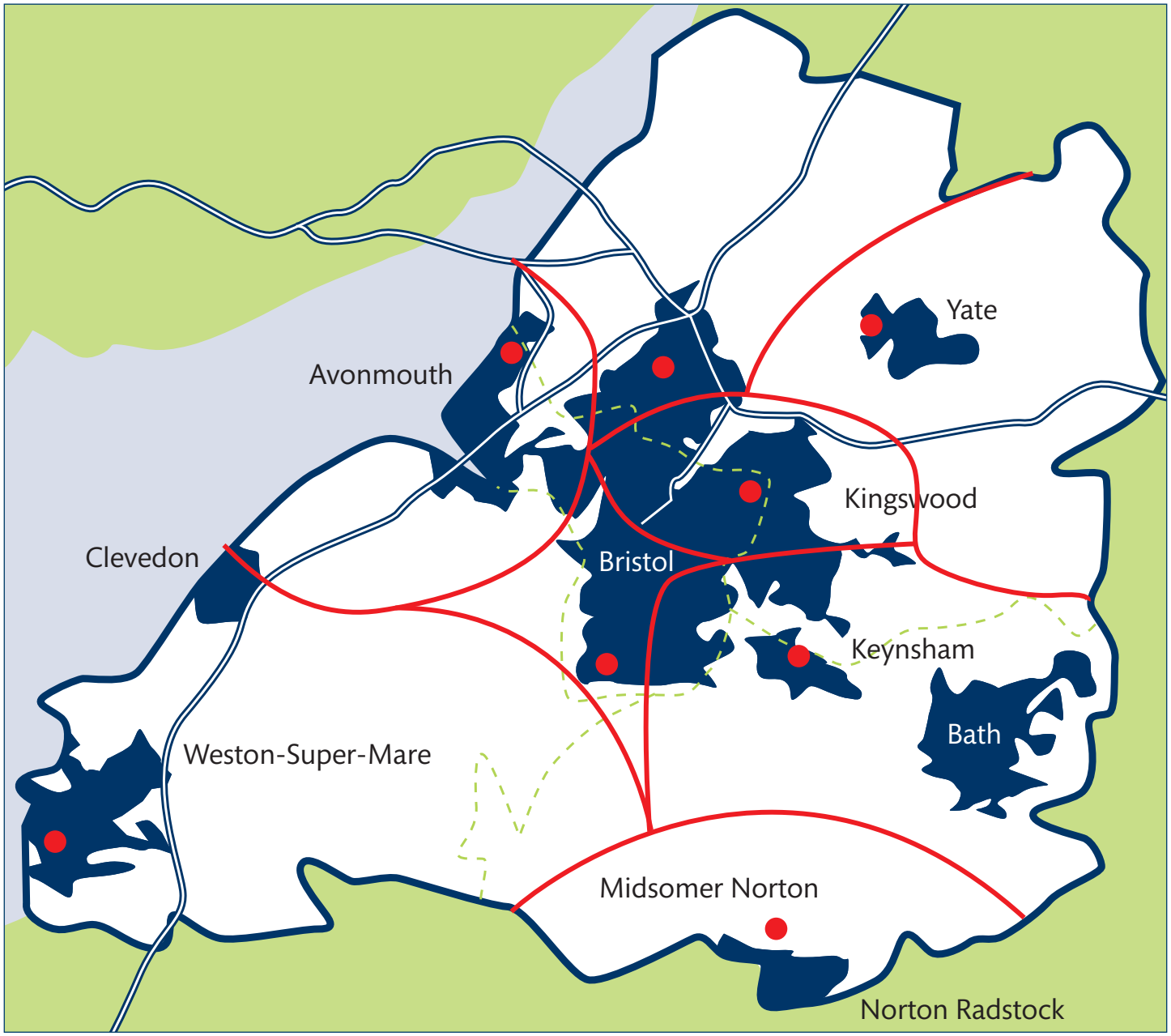
## Option B

**6.46** In order to choose an appropriate method for identifying sites to deliver Option B, population data and the primary road network were studied. Sites were then selected in terms of their location in areas of high population (this is used as a proxy for those areas generating most waste) and relationship with the road network. It was recognised that this method might not fully reflect waste arisings within North West Bristol as this includes a highly industrialised area at Avonmouth, which is not well represented through population statistics.

## Sites considered suitable to deliver Option B

**6.47** Eight different sites are required for this scenario, all delivering 100,000 tonnes per annum (ktpa) of capacity. *Table 6* provides details of the sites thought to be most appropriate in terms of relationships with waste arisings and the primary road network.

## Option B




Option B proposed sites (100,000tonnes per annum per site)

Site divisions

**TABLE 6** Sites considered suitable to deliver Option B

| Site Location | Discrete Site | General Area |
|---|---|---|
| **Weston-super-Mare** | **Either Site 13 or 14** | |
| **Midsomer Norton** | **Site 1** | |
| **Bath** | **There are no sites in Bath, and therefore Site 2 has been selected, as it is the closest.** | |
| **Yate** | | **There are no shortlisted sites in Yate, however there are two general areas (45 and 47), which would be appropriate (Stover Industrial Estate and Great Western Business Park, Yate).** |
| **Clevedon/Portishead** | **Sites would have to be located in Avonmouth and could include Site 8, 4, 7, 3, 5, 6, 12 or 17** | |
| **North Bristol** | **Either Site 16 or 18** | |
| **East Bristol** | **Site 9** | |
| **South West Bristol** | **Site 10** | |

**TABLE 7** Sites considered suitable to deliver Option C

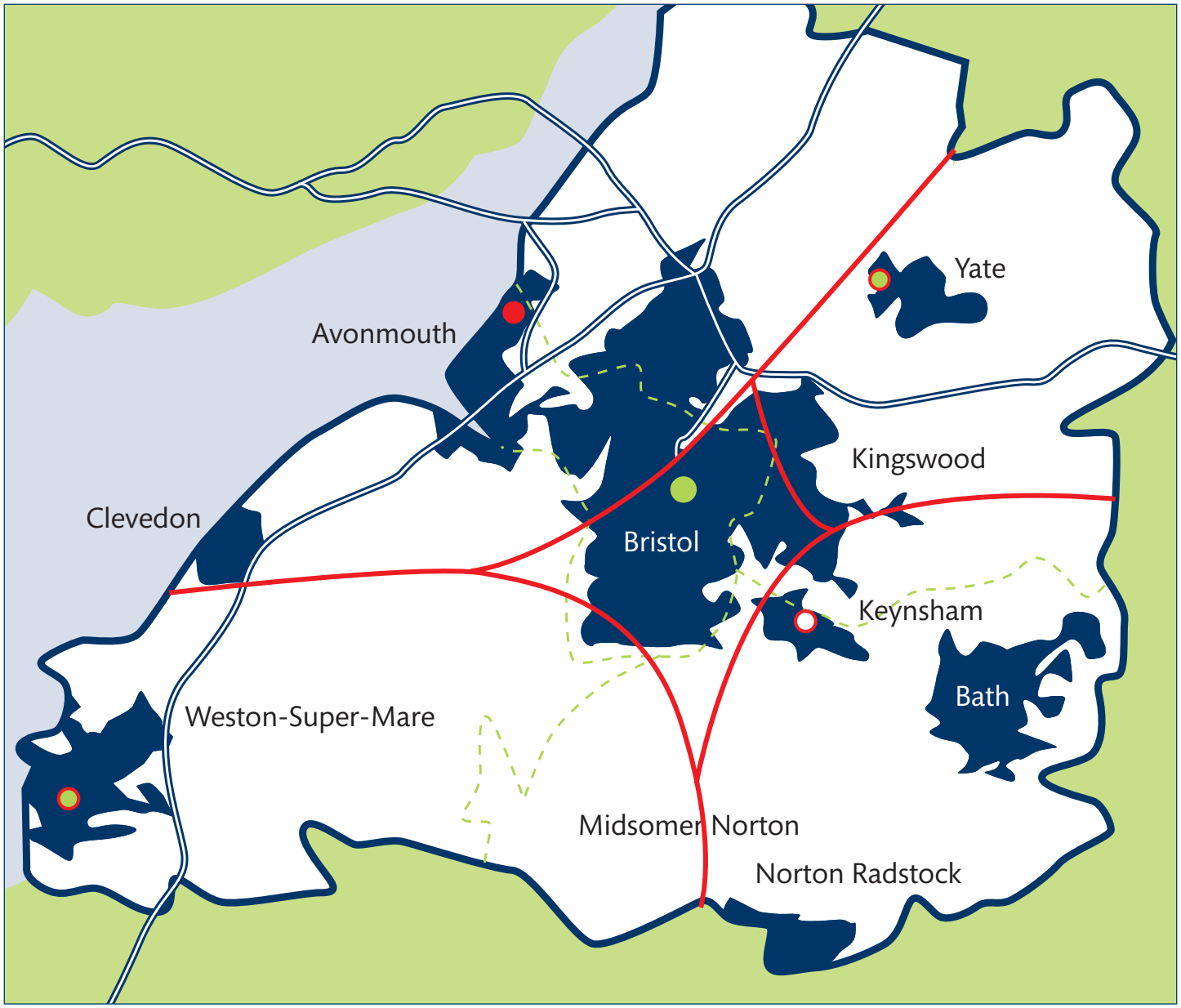
| Site Location | Capacity (ktpa) | Discrete Site General Area |
|---|---|---|
| **North West Bristol** | **390** | **Site 8, 4, 7, 3, 5, 6, 12 or 17** |
| **Inner, East or South Bristol** | **60** | **Site 10, 11, or 9** |
| **Weston-super-Mare** | **100** | **Site13 or 14** |
| **Keynsham** | **150** | **Site 2** |
| **Yate** | **100** | **(see Table 6)** |

## Option C

**6.48** A number of different combinations of tonnages, and their prospective locations, were considered before it was concluded to focus on five plants. It is proposed that there should be one plant of 390 ktpa, one of 150 ktpa, two at 100 ktpa and one at 60 ktpa. This split in capacity enables the benefits and disadvantages of a combined option to be explored through the Sustainability Appraisal. An "Option D" was assessed which tested two separate facilities in North West Bristol. Option C was found to perform better because of economies of scale.

**6.49** Further, the option has a spatial basis – again using population and waste arisings data. Bristol has 56% of the population of the West of England area, so it is reasonable to assume that the distribution of capacity should be weighted toward the city. In this option a total of 450 ktpa capacity is allocated to Bristol, with split of capacity delivered within both within Inner, East or South Bristol (60 ktpa) and North West Bristol (390 ktpa).

## Option C




- Proposed 60,000 tonnes per annum site*
- Proposed 100,000 tonnes per annum site
- Proposed 150,000 tonnes per annum site
- Proposed 390,000 tonnes per annum site
- Site divisions

* diagrammatic: represents one facility to serve Inner/East/South Bristol, from a choice of sites

In order to conform to the proposed draft Regional Spatial Strategy it is necessary to deliver a site within 16 km of both Bath (150,000 tonnes per annum) and Weston-super-Mare (100,000 tonnes per annum ). Yate also has a significant population. This option includes a 100,000 tonnes per annum facility located in this area. *Table 7* on the left identifies potential locations within Option C.

## The Preferred Spatial Option for Recovery Facilities

**6.50** A Sustainability Appraisal has been undertaken of the spatial options and an assessment has been made of the identified sites. Subject to the completion of a Habitats Directive Assessment and the four Strategic Flood Risk Assessments, Option C has been identified as the best performing option, and benefits of the identified sites include factors such as good transport links, proximity to waste arisings and local waste facilities. Option C minimizes waste transport, energy consumption, greenhouse gas emissions and other emissions from waste transport.

**6.51** Further assessment was carried out on the identified short listed sites in order to obtain more detailed information their availability and long-term deliverability for waste management facilities. Overall, the majority of the sites that were assessed were available in the short to medium term, with eight being available in the short term.

**Option C has been identified as the Preferred Spatial Option for the distribution of Recovery facilities. This envisages capacity being provided as follows:**

| Site Location | Site Capacity ('000 tonnes pa) |
|---|---|
| **North West Bristol** | **390** |
| **Inner/South/East Bristol** | **60** |
| **Weston-super-Mare** | **100** |
| **Keynsham** | **150** |
| **Yate** | **100** |

**6.52** Spatial Option C will facilitate the delivery of the required strategic waste management infrastructure. It provides more opportunities for the commercial sector, requires fewer sites than Option B and captures other benefits derived from economies of scale.

## Timeline for the delivery of recovery facilities

**6.53** The Regional Spatial Strategy and Joint Waste Strategy targets for recovery facilities are set out in *Table 1*. They require delivery of the following indicative capacities:

| Target Year | Indicative Capacity (tonnes per annum) |
|---|---|
| **2010** | **260,000** |
| **2013** | **600,000** |
| **2020** | **775,000** |

**6.54** Option C as the preferred strategy for delivering these facilities could be achieved in the following ways, and illustrated in Figures 1 and 2:

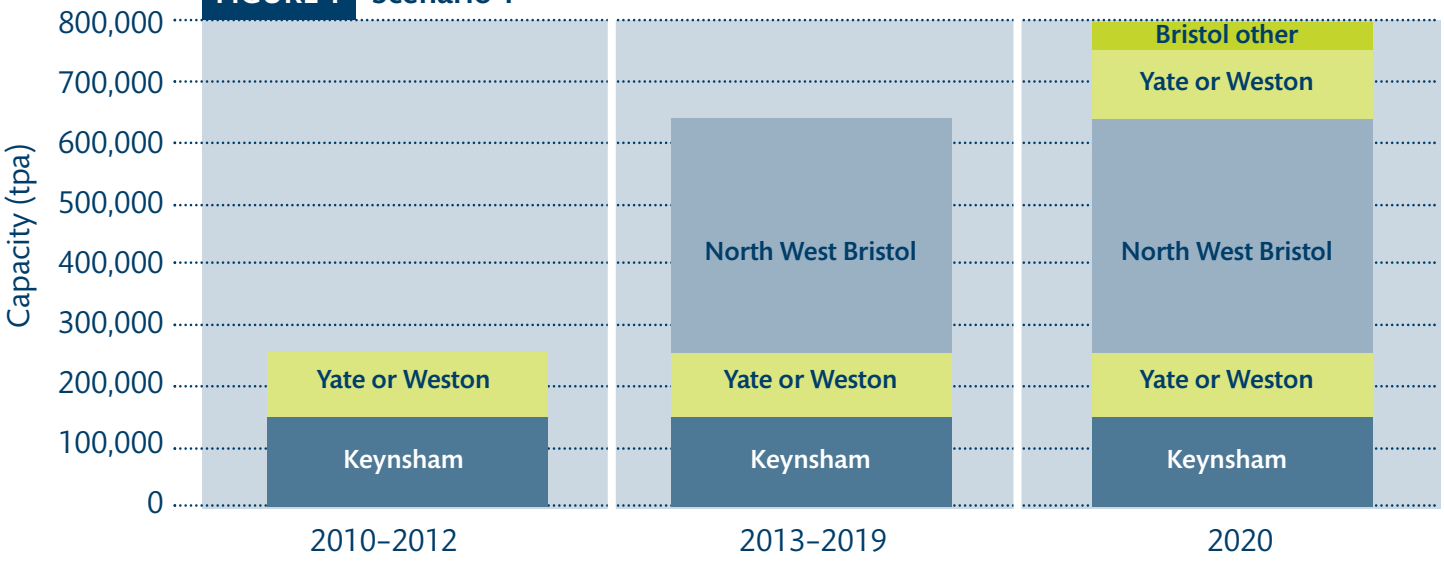
- **Scenario 1** would deliver 250,000 tpa capacity by 2010; 640,000 tpa capacity by 2013 and up to 800,000 tpa (if required) of capacity by 2020.
- **Scenario 2** would deliver 260,000 tpa capacity by 2010; 650,000 tpa capacity by 2013 and up to 800,000 tpa (if required) of capacity by 2020.

These two scenarios are not options. They are intended to illustrate the way in which the indicative targets set out in the draft Regional Spatial Strategy could be delivered.

### Option C Scenario 1

- Delivery of 150,000 tpa facility at Keynsham and a 100,000 tpa facility at either Yate or Weston by 2010;
- Delivery of 390,000 tpa facility at North West Bristol by 2013; and (subject to further review pending success of minimisation and recycling initiatives)
- Delivery of a 100,000 tpa facility at either Yate or Weston and a 60,000 tpa facility in Inner/East/South Bristol by 2020.

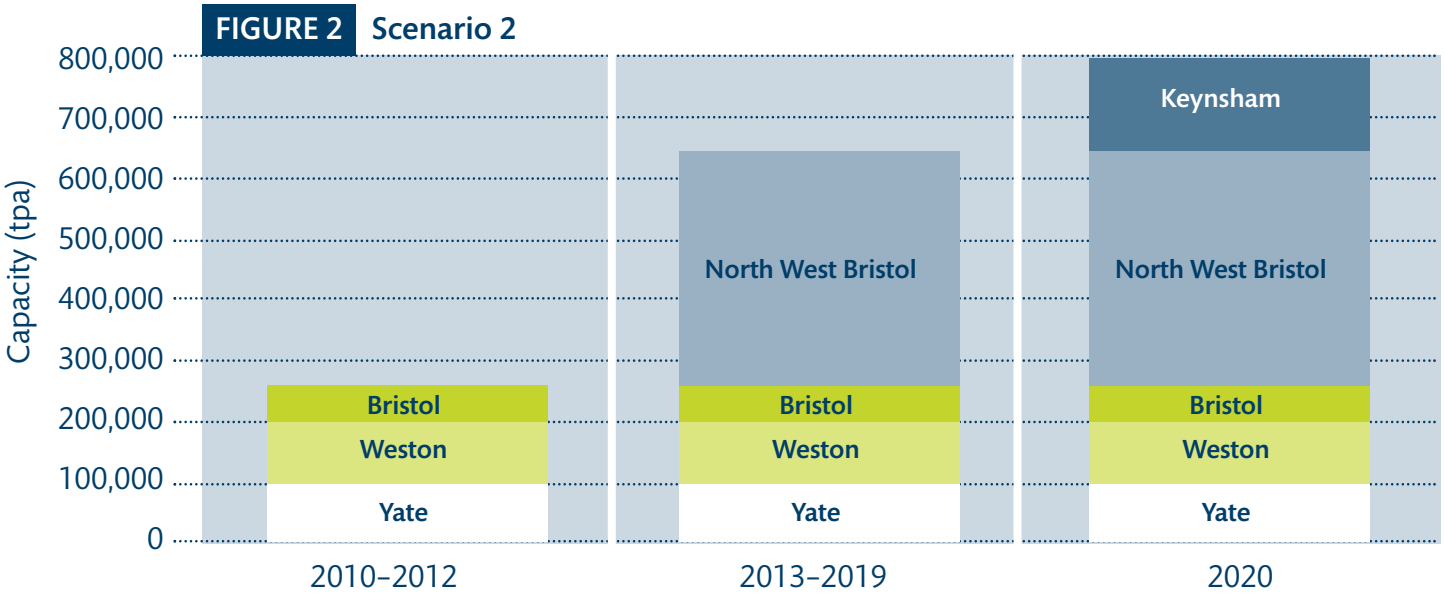
**FIGURE 1** Scenario 1




### Option C Scenario 2

- Delivery of 100,000 tpa facilities at Yate and Weston and a 60,000 tpa facility in Inner/East/South Bristol by 2010;
- Delivery of a 390,000 tpa facility at North West Bristol by 2013; and (subject to further review pending success of minimisation and recycling initiatives); and
- Delivery of a 150,000 tpa facility at Keynsham by 2020.

**FIGURE 2** Scenario 2



## Landfill

### Policy 4

**The proposed policy for Landfill is:**

- **Inert Waste (construction and demolition) –** No policy required. Each Council to make provision for their own area.
- **Non-Inert Waste –** Requirement for new non-inert landfill capacity to replace existing facilities as they close, up to a maximum capacity of 265,000 tonnes per annum; Identify Areas of Search and adopt a criteria-based policy approach.
- **Hazardous Waste –** No policy required. Waste to be exported to specialist disposal facilities.

**6.55** This section considers the preferred strategy for the disposal, after treatment, of inert, non-inert and hazardous wastes over the plan period. Having regard to the latest information provided by the Environment Agency the current situation can be broadly summarised as follows:

**Inert Waste –** Inert waste arisings generated in the West of England are predominantly disposed of within the West of England and in 2005 approximately 540,000 tonnes of inert waste was landfilled in the West of England.

**Non-Inert Waste –** The majority of non-inert waste generated in the West of England is disposed of outside of the sub region. In 2005 approximately 620,000 tonnes of non-inert waste went to landfill of which 235,000 tonnes was disposed of within the West of England. The main areas where the waste was exported to were Gloucestershire, Wiltshire, Devon and Buckinghamshire

**Hazardous Waste –** Records for 2005 show that 6,636 tonnes of hazardous waste was disposed of within the West of England and 3,651 tonnes was exported for disposal. However given the recent change in legislation in respect of hazardous waste disposal it is now considered that all hazardous waste requiring landfill is exported from the West of England.

**6.56** The Issues and Options consultation asked for views as to whether waste should continue to be exported from the West of England or whether the area should be self sufficient. Generally it was considered that waste should be dealt with close to where it was generated and, therefore, that the West of England should be responsible for managing its own waste. There was some recognition and acceptance, although also disagreement, that exceptions might be appropriate:

- for hazardous waste;
- where a facility was close to the West of England boundary and there may be a facility closer across the boundary, and consequent reduced haulage distances;
- where it was economically viable to export; and
- where processing facilities and markets for recyclables rely on national and international distribution, so some cross boundary movements are necessary.

It was also recognised that waste does not respect administrative boundaries and therefore the Joint Waste Core Strategy can only attempt to influence or even out the movement of waste, it cannot prevent exports and imports.

### Inert Waste

**6.57** To date adequate disposal capacity for inert waste arisings within the West of England has been provided within the area. Currently about 540,000 tonnes of inert waste is going to landfill each year in the area. The draft Regional Spatial Strategy does not identify any targets for inert waste but the Regional Waste Strategy indicates an annual requirement for 380,000 tonnes of landfill capacity.

**6.58** This target is significantly lower than current disposal rates. In order to encourage further recycling and re-use of inert materials it is appropriate to plan future provision on the basis of providing this lower capacity of 380,000 tonnes per annum. It is considered

that provision of this capacity is not "strategic" as such waste travels only short distances because of its weight to mass ratio. Therefore, provision for such facilities will be a matter for the individual unitary authorities to each address in their respective development plan documents.

## Non-Inert Waste

**6.59** The most recent data (2005) indicates that 620,000 tonnes a year of non-inert waste from the West of England is going to landfill. Of this 235,000 tonnes is disposed of in the West of England, the remainder going to landfill sites in adjoining counties and by rail to Buckinghamshire. The active landfill sites in the West of England at 2005 were Yanley Landfill and Berwick Farm. Planning permission has since been granted for a further two landfills at Avonmouth and Shortwood, the latter of which commenced operation in 2007. These two additional sites will provide 265,000 tonnes of capacity per year.

**6.60** It is anticipated that Yanley Landfill will close in mid 2009. Berwick Farm closed in 2007 and the permitted 500,000 $m^3$ extension at this site is not expected to be implemented. The landfills at Shortwood and Avonmouth are expected to close within ten years. It is understood that municipal waste from Bristol will continue to be taken by rail to Buckinghamshire until 2011.

**6.61** While the recent permissions will extend the availability of void capacity in the West of England until 2018, as a result of the closure of Berwick Farm and the imminent closure of Yanley they will only marginally increase annual waste disposal capacity. There is therefore, currently, continued reliance on the export of waste to adjoining counties.

**6.62** The non-inert indicative disposal targets in the draft Regional Spatial Strategy predict the need for an estimated 855,000 tonnes of annual disposal capacity in the West of England at 2010. However with current disposal rates running at 620,000 tonnes a year, and with the continued rail contract to Buckinghamshire, it is considered that planning until 2010 should be based on an annual maximum disposal capacity of 620,000 tonnes of non-inert waste within the West of England.

**6.63** *Table 8* and *Figure 3* below compare the current void space with planning permission against the indicative capacity targets identified in the draft Regional Spatial Strategy in order to identify the capacity gap for non-inert landfill.

**6.64** With regard to acceptable locations for future waste disposal it is accepted that existing voids at limestone quarries within the West of England are not appropriate for non-inert wastes because of the Environment Agency's Groundwater Protection Policy. The potential to extend existing landfill facilities is also limited. Yanley Landfill and Berwick Farm are under restoration and not, therefore, expected to re-open.

**6.65** The only alternative to providing this capacity for the West of England would be to continue to export waste to surrounding counties, however, initial discussions with the adjoining authorities have confirmed that they are not planning on the basis of accepting waste exports from the West of England. Further discussions are required to determine whether there were opportunities for the West of England to receive waste for processing/treatment from adjoining authorities in return for landfill void space. This wil be the subject of discussions with adjacent authorities.

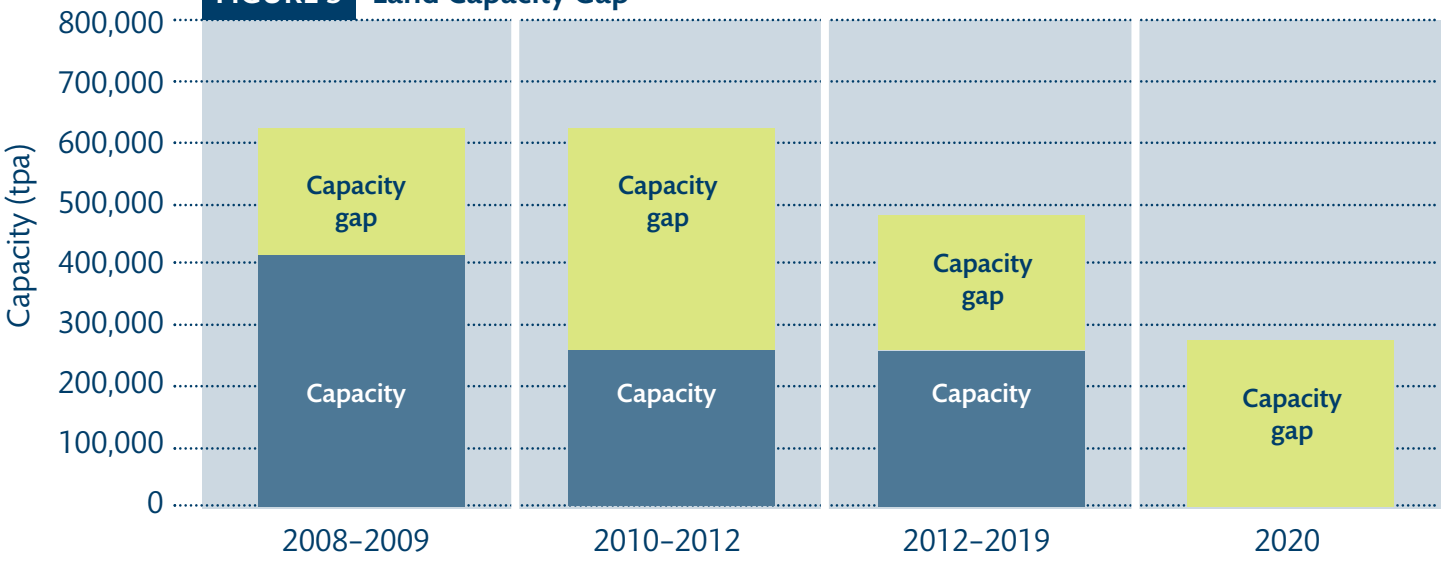
**6.66** Further work is required to identify whether there are sites or areas of land available to deliver sufficient landfill void space to enable the West of England to become self-sufficient in landfill capacity. As set out in the following paragraphs, consultants are currently assessing the opportunities for further landfill void space.

**TABLE 8** Comparison of Required and Assessed Non-Inert Void Capacity in the West of England

| | 2008 | 2010 | 2013 | 2020 |
|---|---|---|---|---|
| **Indicative Capacity Targets (tpa)** | **620,000** | **620,000** | **480,000** | **265,000** |
| **Capacity with Planning Permission tpa** | **415,000** | **265,000 (Yanley Landfill closes mid 2009)** | **265,000** | **0 (Shortwood and Avonmouth close in 2018)** |

*Source: draft Regional Spatial Strategy, Joint Residual Municipal Waste Management Strategy, Jacobs 2006 and West of England Waste Baseline Data*

**FIGURE 3** Land Capacity Gap




**6.67** In order for the West of England to become self-sufficient in landfill capacity over the plan period, this will mean that a replacement for Yanley Landfill and Berwick Farm will need to be identified as soon as possible, and to plan for approximately 265,000 tonnes per annum of non-inert landfill void capacity between 2010 and 2020 to meet the needs of the West of England. The following section describes the study that has been undertaken so far to assess potential locations for new landfill sites and the preferred approach to landfill/landraise.

## Assessment of potential locations for new landfill sites

**6.68** An assessment has been undertaken to identify potential areas of search for sites suitable for the disposal of non-hazardous waste. The key reference for the assessment was the Landfill Directive Regulation Guidance Note 3 prepared by the Environment Agency. Figure 4 shows the location of Groundwater Source Protection Zones 1, 2 and 3 which are regarded as a primary constraint. This would effectively rule out landfill/landraise within these areas.

Figure 4

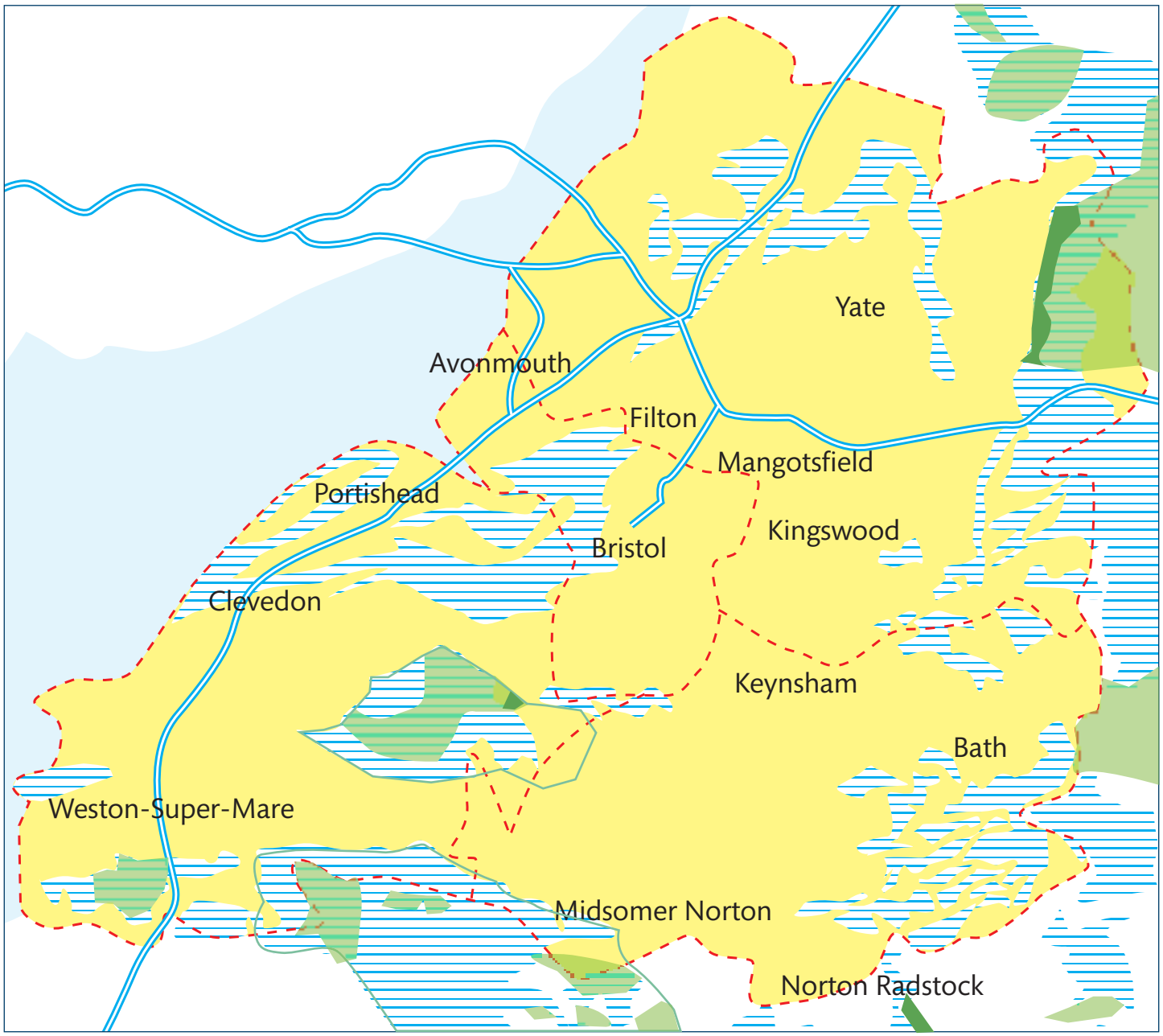
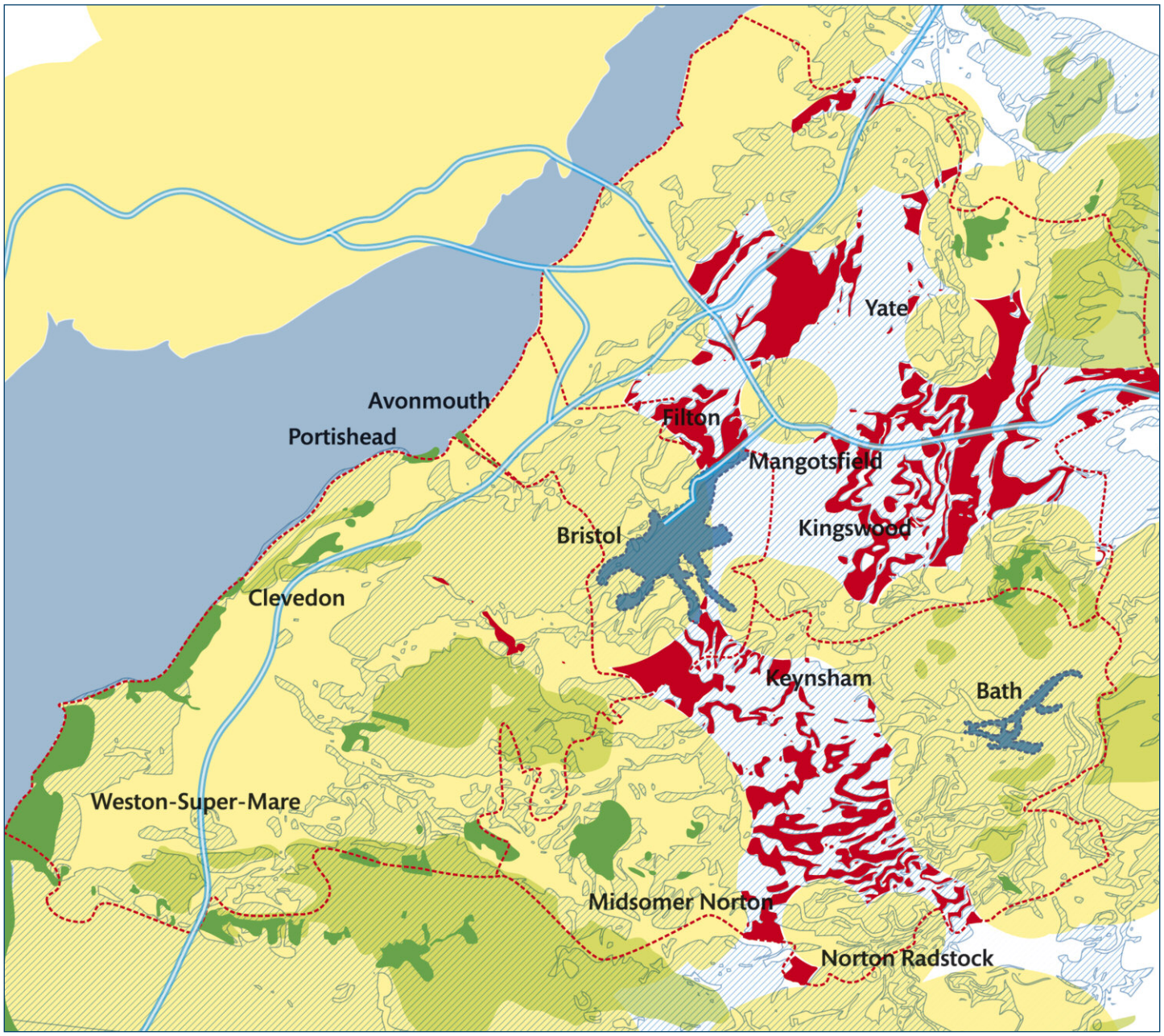

Yate
Avonmouth
Filton
Mangotsfield
Portishead
Kingswood
Bristol
Clevedon
Keynsham
Bath
Weston-Super-Mare
Midsomer Norton
Norton Radstock
Areas not covered by Source Protection Zones or major aquifers
County outlines
Major aquifers
Source Protection Zone - 1
Source Protection Zone - 2
Source Protection Zone - 3

Figure 5

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SSSI, Ramsar, SPA or SAC

SSSI buffer (2km), Ramsar buffer (2km), SAC buffer (5km), or SPA buffer (5km)

Source Protection Zones (1–3)

Air quality management area

Major and minor aquifers

Areas available for landfill potential

**6.69** Landfill Directive Regulation Guidance Note 3 presents a number of additional constraint designations where the location of a landfill facility would require a risk assessment. These secondary constraints are:

- a minor aquifer;
- within 2 km of a Site of Special Scientific Interest (SSSI);
- within 5 km of a Special Area of Conservation (SAC), Special Protection Area (SPA) and/or Ramsar site; and
- Air Quality Management Area (AQMA).

**6.70** The advice in Guidance Note 3 is that development of a non-hazardous landfill facility should not occur within the identified areas of primary and secondary constraint without first having completed a risk assessment. A risk assessment requires knowledge of local conditions and waste streams. It would include an assessment of a range of factors including geology, and the impact on humans, flora, fauna, air, water, land and buildings/structures.

**6.71** Applying both the primary and secondary constraints results in limited areas of land remaining within the West of England as potential areas of search for a non-hazardous landfill facility (red areas). *See Figure 5.*

**6.72** In accordance with the Waste Hierarchy, landfill (including landraise) is the option of last resort. A greater emphasis on waste minimisation, re-use, recycling, and recovery of energy and resources from waste streams will reduce the amount of waste to be landfilled. However, landfill will continue to play an important part in waste management. Landfill voids require careful management in order to discourage disposing of material that would otherwise be capable of being re-used, recycled or treated for the recovery of energy. At the same time, reliance on landfill will need to be reduced.

**6.73** The application of primary and secondary constraints has demonstrated *(in Figure 5)* that very limited potential areas of search for non-hazardous landfill remain in the West of England. The next step required research of mineral extraction or similar works. This identified four clay extraction areas, which lie within areas that will require a detailed risk assessment.

**6.74** If none of these sites are suitable for non-hazardous landfill it can be assumed that there are no suitable areas for non-hazardous waste within the West of England. The preferred option for non-hazardous landfill (including landraise) is that the Joint Waste Core Strategy should identify on the Key Diagram Landfill Search Areas based on further assessment of the remaining areas (coloured red) on *Figure 5* and to identify relevant criteria for the consideration of planning proposals for landfill.

**6.75** The indicative non-hazardous waste capacity targets set out under *Table 8* above will be planned for having regard to the results of monitoring the remaining void capacity of non-inert landfill with planning permission. In addition, further consideration will be given to an option of continuing to export a proportion of waste to be sent to landfill sites outside of the West of England and to consider the implications for the provision of additional waste treatment facilities with in the sub region. This would be in accordance with the approach suggested in the draft Regional Spatial Strategy whereby, for example, a Waste Planning Authority is unable to identify appropriate sites for the required capacity for one management method (for example because geological conditions are unsuitable for additional landfill capacity), the Authority should reach agreement with a neighbouring authority.

**6.76** New non-hazardous landfill sites will only be provided within the Landfill Search Areas identified on the Key Diagram, which excludes:

- All major aquifers;
- Groundwater Source Protection Zones 1, 2 and 3;
- Sites of Special Scientific Interest and National Nature Reserves and a 2 km Buffer;
- Ramsar Sites and 5 km Buffer;
- Special Areas of Conservation and a 5 km Buffer;
- Special Protection Areas and a 5 km Buffer; and
- Air Quality Management Areas.

and excluding:

- Urban areas, incorporating a 250 m buffer zone;
- All minor aquifers; and
- Flood Risk Zones 3a and 3b.

Only in exceptional circumstances will new non-hazardous landfill sites be provided outside the Landfill Search Areas identified on the Key Diagram, subject to risk assessment.

**6.77** The Preferred Option for landfill/landraise is that the Joint Waste Core Strategy recognises that there is a continuing need for landfill/landraise capacity but that there is limited existing and potential capacity for landfill/landraise within the West of England. There is a need to assess areas within the West of England identified with potential for clay extraction, to ascertain their suitability for development of a non-hazardous landfill facility before a detailed risk assessment is undertaken.

**6.78** The Landfill Directive requires wastes to be treated prior to landfill. It is proposed that new landfill sites should incorporate pre-treatment that removes as much waste that is capable of being recycled as practicable either on or off site.

## Hazardous Waste

**6.79** There are now very few landfills in the UK which accept hazardous waste. Such specialist facilities are recognised as being of regional and national importance and receive waste from a wide catchment area. Hazardous waste that requires final disposal is therefore travelling substantial distances to these specialist disposal facilities and given the current pollution control regime this is considered likely to be the case for the foreseeable future.

**6.80** It is therefore the preferred option for hazardous waste arisings within the West of England requiring disposal to continue to be exported to the specialist facilities that can deal appropriately with this type of waste.

# 7 Delivery of the Waste Planning Strategy and Monitoring

**7.1** The Joint Waste Core Strategy will include a monitoring and implementation framework with strategic objectives for achieving delivery. The guidance in Planning Policy Guidance 12: Local Spatial Planning is that the delivery strategy is central and that it needs to show how the objectives will be delivered. Particular attention needs to be given to the coordination of the actions of the Councils as planning authorities and others. The delivery strategy will also need to set out when, where and by whom these actions will take place. The involvement of relevant agencies and partners and the availability of the required resources are vital if the strategy is to be delivered.

**7.2** The main focus of the delivery strategy will be to ensure that the strategic waste management facilities identified as being required in the Joint Waste Core Strategy are actually delivered. The Joint Residual Municipal Waste Management Strategy, and the aspirations of the providers of facilities required to manage industrial and commercial wastes will inform the delivery strategy.

**7.3** The priority will be to ensure that the required facilities are capable of being provided in the manner identified by the Joint Waste Core Strategy at the right time and in the right place. It will also need to enable the integration of waste management facilities within the identified areas of future development, such as the proposed urban extensions, and ensure that the waste planning implications of new development are properly taken into account.

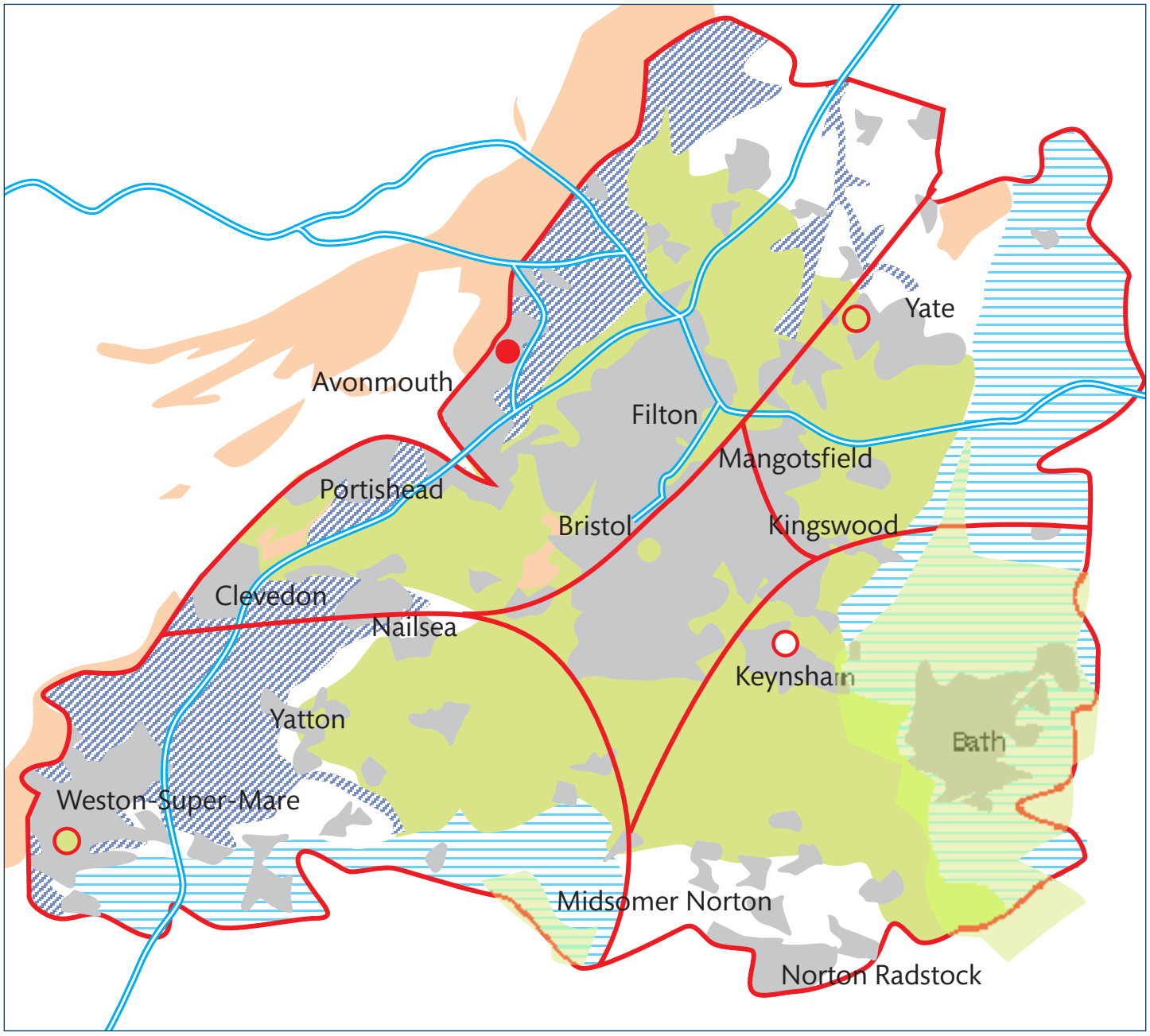
**7.4** The Joint Waste Core Strategy will incorporate appropriate monitoring indicators. These will focus on the Aims and Policies of the Core Strategy, where appropriate. A report on performance will be incorporated into the Annual Monitoring Report prepared by each Unitary Authority.

## Key Diagram

**7.5** The Key Diagram *(see next page)* will illustrate the broad locational strategy for the delivery of the Joint Waste Core Strategy, including Landfill Search Areas. Because the Joint Waste Core Strategy will include policies that need to be defined on an Ordnance Survey or similar map base, these will be illustrated on a submission proposals map. This will identify strategic sites for development identified as being suitable or appropriate for strategic waste management facilities and which are considered central to the achievement of the core strategy. Non-strategic sites will be identified in appropriate development plan documents prepared by each Authority.

**7.6** The Key Diagram included as part of the consultation on the Preferred Options sets out the proposals for the distribution of recovery facilities and the significant environmental and other constraints. These include Green Belt, International Wildlife Sites, Areas of Outstanding Natural Beauty and National Flood Zone Levels 2 and 3.

## Key diagram




- Proposed 60,000 tonnes per annum site
- Proposed 100,000 tonnes per annum site
- Proposed 150,000 tonnes per annum site
- Proposed 390,000 tonnes per annum site
- Site divisions
- Motorways
- Major urban areas
- International wildlife sites
- AONB
- National flood zones
- Green belt

This is consistent with Option C in relation to Recovery".

# Glossary

### Clinical Waste

Waste arising from medical, nursing, dental, veterinary, pharmaceutical or similar practices, which may present risks of infection.

### Combined Heat and Power

Combined Heat and Power (CHP) is the simultaneous generation of useable heat and power (usually electricity) in a single process. CHP is a highly efficient way to use both fossil and renewable fuels and can therefore make a significant contribution to the UK's sustainable energy goals, bringing environmental, economic, social , and energy security benefits.

CHP is a form of a decentralised energy technology. It is typically installed onsite, supplying customers with heat and power directly at the point of use, therefore helping to avoid the significant losses which occur in transmitting electricity from large centralised plant to the customer.

### Commercial and Industrial Waste (C&I)

Waste from premises used wholly, or mainly, for the purpose of a trade or business or for sport, recreation or entertainment.

### Composting

A biological process which takes place in the presence of oxygen (aerobic) in which organic wastes, such as garden and kitchen waste are converted into a stable granular material. This can be applied to land to improve soil structure and enrich the nutrient content of the soil.

### Construction and Demolition Waste

Waste, generally inert, arising from the construction, maintenance or demolition of buildings or other civil engineering structures.

### Development Plan Documents

These are statutory local development plan documents prepared under the Planning and Compulsory Purchase Act 2004, which set out the spatial planning strategy and policies for an area. They have the weight of development plan status and are subject to community involvement, public consultation and independent examination.

### Energy from Waste (EfW)

Energy that is recovered by thermally treating i.e. incinerating waste. The waste is combusted to produce steam and electricity; metals are recovered for reprocessing, as is bottom ash for use as a substitute aggregate. Hazardous Air Pollution Control residues are landfilled.

### Hazardous Waste

Waste that is defined in EU legislation as the most harmful wastes to people and the environment. It is waste that, by virtue of its composition, carries the risk of death, injury or imparement of health, to humans or animals, could cause water pollution, or could have an unacceptable environmental impact if improperly handled, treated or disposed of.

### Household Waste

Waste from a private dwelling or residential house or other such specified premises, and includes waste taken to household waste recycling centres.

### Household Waste Recycling Centres

Recycling centres are facilities provided by the Unitary Authorities to which the public can bring household waste, such as bottles, textiles, cans, paper, green waste and bulky household items/waste for free disposal.

### Inert Waste

Inactive or un-reactive waste that contains no organic or biodegradable materials, such as builders' rubble.

### Landfill

The engineered practice of depositing waste into or onto land which will be restored at the end of its life to provide land for alternative use.

### Landfill Allowance Trading Scheme

Process of apportionment, by local authority area, of the tonnage of biodegradable municipal waste that may be disposed of to landfill to meet EU Landfill Directive targets.

### Landraise

The deposit of waste material above existing or original ground level.

### Local Development Framework

A portfolio of local development documents that will provide the framework for delivering the spatial planning strategy and policies for an area.

### Municipal Solid Waste

Municipal waste includes household waste and any other wastes collected by waste collection authorities (or their agents) such as municipal parks and gardens waste and waste resulting from the clearance of fly-tipped materials.

### Non-inert waste

Active Waste. The degree of biodegradability varies by waste stream. For municipal solid waste, Defra determined that it is 68%, i.e. that 32% is non-biodegradable.

### Recovery

The process of obtaining value from wastes through recycling, composting, other forms of material recovery (such as anaerobic digestion); and energy recovery (combustion from direct or indirect use of the energy produced) or from the manufacture and use of a refuse derived fuel in gasification, Pyrolysis or other technologies.

### Recycling

Recovering re-useable materials from waste or using a waste material for a positive purpose.

### Regional Spatial Strategy

A document prepared by the South West Regional Assembly to replace the Regional Planning Guidance for the South West (RPG10).

### Reuse

Reuse of materials in their original form, without reprocessing other than cleaning.

### Residual Municipal Solid Waste

Waste collected by local authorities which is not reused, or is not source segregated for recycling or composting and therefore remains to be managed.

### Waste

Unwanted materials as defined by the Environmental Protection Act 1990. Waste includes any scrap metal, effluent or unwanted surplus substance or article that requires to be disposed of because it is broken, worn out, contaminated or otherwise spoiled. Explosives and radioactive wastes are excluded.

### Waste Hierarchy

An order of waste management methods based on their predicted sustainability.

### Waste Resource Parks

An industrial estate located near or adjacent to a waste facility such as a Material Recovery Facility where the companies use recycled materials, for example in the production process.

# Joint Waste Core Strategy
# Preferred Options Consultation

Your comments on every aspect of this document are welcomed. You can write your comments in the spaces provided below; you can continue on additional sheets, or you can complete the consultation document on line by visiting the web site: **www.rubbishorresource.co.uk**

**This 'Preferred Options' consultation focuses on where waste treatment facilities could be located.**

**These waste treatment facilities will handle not only municipal waste (basically waste collected from households or taken to Household Waste Recycling Centres) but also waste generated by Commercial and Industrial companies in the West of England area.**

**Name:**

**Address:**

**Telephone number:**

## Waste Minimisation

**The proposed policies for Waste Minimisation are:**

- **To promote the use of Waste Audits, and**
- **To identify the types of developments for which waste audits would be applicable.**

Please comment on the proposed policy for **Waste Minimisation:**

## Recycling and Composting

**The proposed policies for Recycling and Composting are:**

**Inert (construction and demolition) waste recycling facilities:**

- **To provide facilities at existing mineral sites, brown-field or industrial sites in urban or rural locations and existing and former waste sites.**

**Non-Inert material (commercial and industrial) recycling/waste transfer facilities:**

- **To keep existing facilities on industrial/brown-field land with an acceptable access on to the primary route network.**

**Household waste recycling centres:**

- **To provide facilities to serve Bath, Bristol, Stoke Gifford and North Somerset**

**Open windrow composting:**

- **To support proposals for small-scale 'on-farm' facilities.**

**In-vessel composting facilities:**

- **To locate these facilities on brown-field or industrial sites in urban or rural locations along with existing and former waste sites.**

Views expressed to the Issues and Options consultation were strongly in favour of recycling. This planning document has to plan where to locate facilities for recycling or composting material produced by commercial and industrial concerns. These would include recycled aggregate processing facilities, material recycling/waste transfer stations, and open windrow and in vessel composting facilities.

Please comment on the proposed policies for **Recycling and Composting:**

## Recovery

**The proposed policy for Recovery is:**

- **To identify suitable sites at North West Bristol, elsewhere in Bristol, Weston-super-Mare, Keynsham and Yate.**

Recovery is the process of extracting a product of value from waste materials. Modern technology enables us to generate valuable 'renewable' energy from waste. They can also make a contribution towards the regional targets set out in the draft Regional Spatial Strategy for renewable heat generation.

There is an annual target for almost 800,000 tonnes of waste to be managed through recovery facilities by 2020, and there are no such facilities currently operational in the West of England.

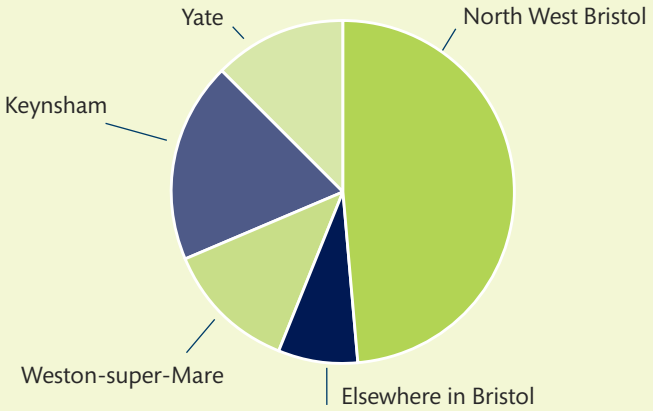
There are a number of different ways in which recovery facilities can be spaced out. These are known as spatial options. Three spatial options have been identified:

- **Option A: 2 recovery facilities at 400,000 tonnes per annum each**
- **Option B: 8 recovery facilities at 100,000 tonnes per annum each**
- **Option C: a combination of Options A and B**

**Option C – the combination of small, medium and large scale facilities is the Preferred Option of the West of England Partnership.**

**Briefly this means providing facilities at:**

| | *per year capacity* |
|---|---|
| **North West Bristol** | **390,000 tonnes** |
| **Elsewhere in Bristol** | **60,000 tonnes** |
| **Weston-super-Mare** | **100,000 tonnes** |
| **Keynsham** | **150,000 tonnes** |
| **Yate** | **100,000 tonnes** |




Please comment on the proposed policy for **Recovery**

## Landfill

**The proposed policies for Landfill are:**

**Inert Waste (Construction and Demolition)**

- **No policy required. Each Council to make provision for their own area.**

**Non-Inert (non-hazardous municipal, commercial and industrial waste)**

- **Requirement for new non-inert landfill capacity to replace existing facilities as they close, up to a maximum capacity of 265,000 tonnes per annum. No sites are proposed to be identified for landfill/landraise through the Joint Waste Core Strategy. Landfill Search Areas are identified on the Key Diagram and identified relevant criteria will be applied to planning proposals. Further consideration to be given to continuing to export a proportion of waste to be sent to Landfill.**

There remains a need for landfill for certain types of waste. This is mainly for inert waste – i.e. waste which is stable and unlikely to decompose. However, there is a limited amount of existing landfill space in the West of England. Most of the waste materials sent to landfill are currently sent to sites outside the area.

In the Issues and Options consultation it was generally considered that waste should be dealt with close to where it is generated. While there are spaces in some of the limestone quarries that exist in the West of England, they are not appropriate for biodegradable waste because of the Environment Agency's Groundwater Protection policy. The potential to extend the existing facilities is limited, and discussions with adjoining councils have confirmed that they do not plan to accept waste exports from the West of England.

In order for us to become self-sufficient in Landfill, we will need to find replacement site/s, which could accommodate 265,000 tonnes per year. Because there are significant environmental constraints within the West of England, which result in a large number of relatively small areas of search, there are no proposals to identify sites for Landfill. Further consideration is to be given to exporting a proportion of waste going to landfill outside of the West of England and to consider the implications for the provision of additional waste treatment facilities with in the sub region.

**Hazardous Waste**

- **No policy required. Waste to be exported to specialist disposal facilities.**

Please comment on the proposed policies for **Landfill**

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To return this form (and any additional sheets) please separate it from the main document along the dotted line and post it in a stamped envelope to:
**West of England Partnership, Floor 1, Wilder House, Bristol BS2 8PH**