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Why a Regional Waste Strategy?

The Region's Vision for Waste:

'The South West Region will become a minimum waste producer by 2030, with business and households maximising opportunities for reuse and recycling.'

This will require radical changes in all our behaviour over the next thirty years if we are to work towards zero waste production. We shall need to:

- minimise production of waste, and
- reuse, recycle and recover value from the maximum practicable amount of waste that is produced

This will help to prevent degradation of the environment by lessening the need for landfill and should assist business competitiveness and increase job opportunities within the South West.'

The Regional Vision: *Minimum Waste: Maximum Benefit* was agreed in 2002 after extensive consultation. The full 'Vision' at Appendix A sets out some broad aspirations for the South West region to deal with the minimisation, treatment and disposal of waste over the period to 2030.



A key driver for this set of aims for the region is a realisation that the current approach to dealing with waste in the South West is, in the longer term, unsustainable. The South West has been the fastest growing region in the UK and that growth is likely to continue. The region is also a highly attractive tourism destination which brings a substantial influx of visitors and their consequent waste. Combined with a generally buoyant economy and the region's high environmental quality it is becoming increasingly important to develop new approaches to the waste issue in partnership across the region. In particular, the preponderance of landfilling as the principal means of disposal is both wasteful of resources and environmentally unsustainable.



Moving towards 'zero' waste² in the region is a very long term ambition; the Vision and this Strategy are steps on the way, and both the Vision and the Strategy were developed following extensive consultation within the region.

The Strategy is both in line with and tries to some extent to anticipate changes in European and National legislation for waste disposal. It is one of a number of regional strategies which sit within the Integrated Regional Strategy being developed by the Regional Assembly. There are important relationships between the Waste and Environment Strategies³ and with the Regional Economic Strategy (as identified in policy section 4). Key spatial elements of the Waste Strategy will ultimately find expression within the new Regional Spatial Strategy which will undergo a formal examination in public, but the whole of this document will be an important supporting document to the Regional Spatial Strategy.

The region needs a concerted strategic approach to waste. Working together can help overcome some difficult issues as set out in the Vision document. The Strategy and policies have been constructed with the following strategic principles in mind:

- ➔ *Priority should be given to initiatives and facilities which will encourage and promote waste reduction and the reuse of materials and products*
- ➔ *Local authorities should work with each other, regional partners, including the business sector, the Environment Agency, the waste industry, non-government organisations (NGOs) and community groups to ensure the integration of strategies and proposals for waste management with the regional waste strategy's aims*
- ➔ *Sub-regional partnerships and constituent authorities should have regard to the policies and guidelines for amounts of waste to be dealt with in this Regional Waste Strategy, and seek to identify the combination of facilities and other waste management options which best meets environmental, social and economic needs for their areas based on the following general sustainable waste management principles:*
 - *the need to reduce the reliance on landfill*
 - *adoption of the waste hierarchy*
 - *regional and sub-regional self-sufficiency*
 - *the proximity principle (ie waste should be managed close to where it was produced); and*
 - *consideration of the Best Practicable Environmental Option (BPEO) for the region and their area if appropriate*

² Zero waste has many different interpretations, but generally it is a broad concept of changing design to maximise the ability to reuse and repair, to recycle as much as possible and eliminate residual wastes which have no useful function

³ The Environment Strategy includes the objective "to ensure that our natural resources are used sustainably with minimum environmental damage and waste generation, so as to reduce pollution and protect the quality of the region's environment." Our Environment, Our Future, SWRA, 2004



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As well as environmental benefits, the Strategy should also open up new economic opportunities for reuse, recycle reprocessing and energy recovery.

Working through its Regional Technical Advisory Body (RTAB), the Assembly instigated technical work to help identify the Best Practicable Environmental Option for dealing with waste in the South West. The independent consultant's study recommended the Best Practicable Environmental Options for managing all the main waste streams for the region (ie municipal, commercial and industrial, construction and demolition, hazardous waste). An Executive Summary of the BPEO report is at Appendix J.

Best Practicable Environmental Option (BPEO) Study

The study investigated the environmental, social and economic impacts of a range of waste management systems that might be required to deliver or exceed Government waste management targets by 2020.

The consultants followed government guidance⁴ on BPEO and finalised their work in mid 2003. With such a long time horizon for the BPEO, there are inevitably some uncertainties about data and

technologies which required assumptions to be made about growth in waste production and the feasibility of certain management processes.

Two of the integrated waste management scenarios tested performed consistently well against agreed evaluation criteria. The findings of the consultancy report were further developed, resulting in a single preferred option as a basis for this Strategy that incorporated the two high performing scenarios. The key elements of this option are:

- *More emphasis should be put on source separated recycling to achieve a minimum of 45% waste recycling/composting*
- *Facilities should be developed to enable further value to be recovered from mixed residual waste through mechanical and biological treatment; and/or*
- *As much energy as possible should be recovered from residual waste through thermal treatment technologies*
- *Only dispose of residues to landfill; and*
- *Better use should be made of inert waste materials, particularly construction and demolition waste, to substitute for primary aggregates*

⁴ Planning for Sustainable Waste Management, ODPM, 2002



Developing the Strategy

The Waste Strategy for the South West supporting the Vision is:

To minimise the amount of waste produced in the region, and then to make a major shift away from current reliance on landfill of untreated waste, so that by 2020 less than 20% of waste produced in the region will be landfilled.

This is a clear regional target for waste generation, treatment and disposal, which needs to be reflected in sub-regional Waste Development Plans and other relevant plans and strategies. The Assembly will be working with local authorities to help them achieve the target. The Strategy, therefore, exceeds current government targets for recycling and looks forward to what may well be required in future years. The shift away from landfill is applicable to all waste streams, although the greatest difference is for municipal waste, where the strategy requires a shift from the current landfilling rate of around 80% to a rate of less than 20%. This change of emphasis is in line with the approach to waste management being adopted in other regions. However the change to 20% appears to be greater than some other regions partly due to the forecast change in population and the overall growth in the amount

of waste produced⁵. It is also important to note that as the environment is such a key driver for the region, the region should go beyond national targets where the quality of the environment needs to be preserved.

The comparison of where we are now with where we need to be in 2020 can be clearly demonstrated diagrammatically. The Strategy incorporates the waste hierarchy, a “sequential approach” to waste management, as follows:

- 1** *Reduce the amount of waste generated*
- 2** *Reuse as much as possible*
- 3** *Recycle as much as possible*
- 4** *Recover as much value from what is left*
- 5** *Dispose of the residues through further treatment and/or landfill*



⁵ The Landfill Directive requires that no more than 35% of the amount of biodegradable waste produced in 1995 is landfilled by 2020. Therefore, as the total amount of such waste will have increased substantially in the period 1995-2020, far less than 35% of the waste produced in 2020 will

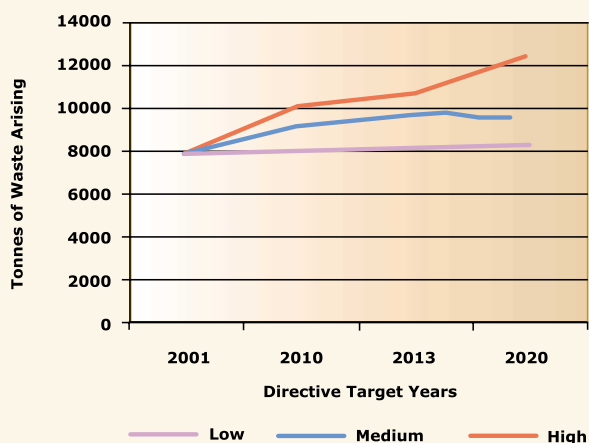
be able to be landfilled. Areas with static or declining populations will, therefore, have far less of a challenge in meeting landfill directive targets, as DEFRA has indicated that it will not take into account changes in population in determining allocations



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Diagram 1 shows forecasts of the amounts of waste the region might have to deal with by 2020 and the effects of different levels of intervention to minimise waste production. The high growth in waste scenario assumes a low level of achievement of waste minimisation, the lowest growth in waste scenario implies achievement of considerably higher levels of minimisation and reuse than are considered possible for the region in the period to 2020, but which may be achievable in the longer term. The middle growth forecast is the level adopted in this Strategy. This is considered to be achievable, although challenging, particularly given the forecast levels of population growth in the region.

Diagram 1 – Projected Change in Total Waste Managed to 2020 for Low, Medium and High Growth



Assumed Growth in Waste Arisings

The following compounded growth rates in waste arisings are forecast. Growth rates for municipal waste have been based upon figures taken from local authority waste local plans and municipal waste management strategies up to 2010, and then based upon declining growth rates forecast in the BPEO study for the period 2010-2020. Growth rates for commercial, industrial, construction and demolition waste are taken from the BPEO study.

Waste Stream	Annual Regional Growth Rates Compounded to 2020
Municipal Solid Waste	1.6%
Commercial ⁶	1.9%
Industrial (excluding construction and demolition)	-0.9%
Construction and Demolition	No growth

⁶ Due to the lack of trend data on commercial and industrial figures, growth rates in the sub-regional appointments in Appendix C have been calculated as a range between 0% and 1% (1% is the combined annual growth rates for both Commercial and Industrial waste)

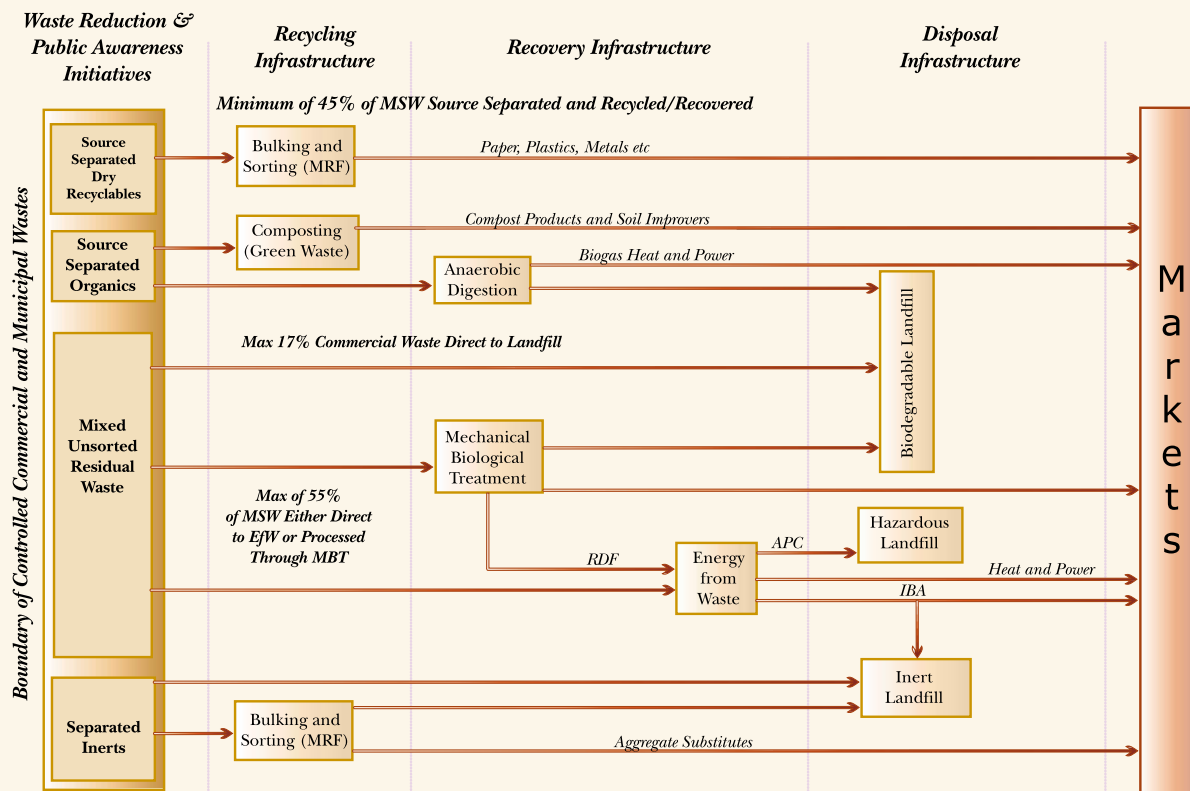


Diagram 2 – The Waste Management System in 2020?

Diagram 2 shows how the nature of the waste management system might look in the region in 2020, based on this Strategy. Diagrams 3 and 4 use municipal waste as an example to show current practice (Diagram 3) and the “sequential approach” to be applied by 2020 (Diagram 4).



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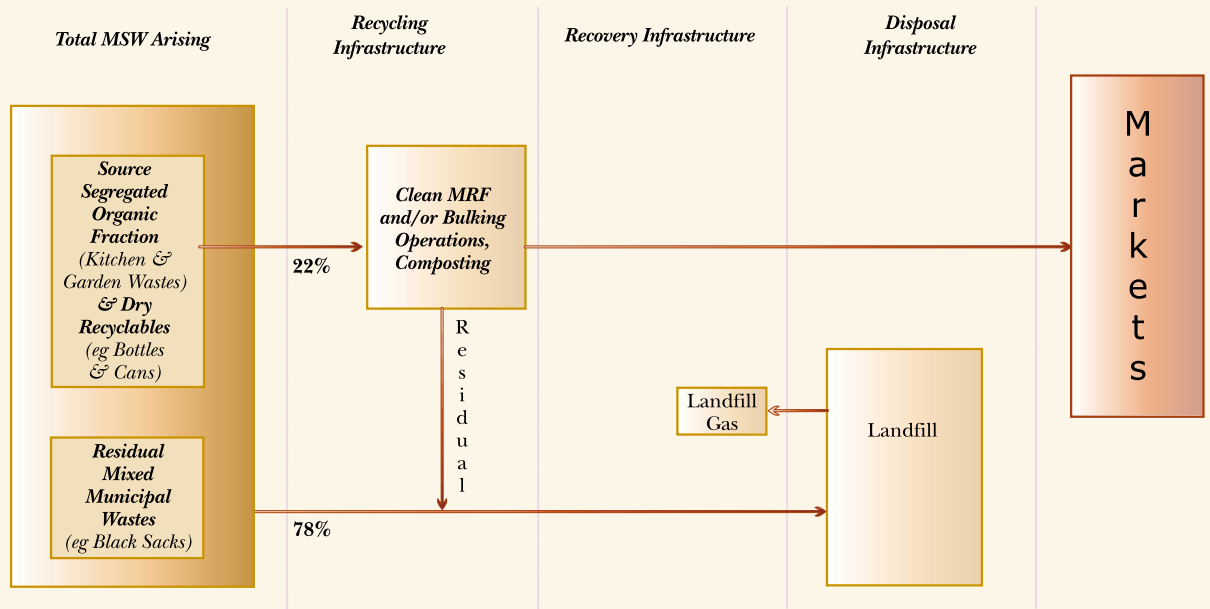


Diagram 3: Current Typical Municipal Solid Waste - Waste Flows⁷

This is an integrated Strategy based on the BPEO assessment which tries to take into account a range of costs and benefits across social, environmental and economic/financial considerations to arrive at the most sustainable option. The indicative infrastructure and landfill capacity requirements to meet this Strategy for dealing with the major waste streams are set out in the policies and actions in the next section. The Strategy implies that around 500-600 facilities will need to be in place by 2020,

including composting facilities, recyclates sorting facilities, mechanical, biological and thermal treatment plants and disposal facilities⁸ most of these will be new facilities. It is not the role of this Strategy to specify where these facilities should be located but the policies which follow give strategic guidance for these local decisions.

⁷ Note: Percentage waste is by weight of total MSW arising

⁸ Excluding recyclates reprocessing facilities

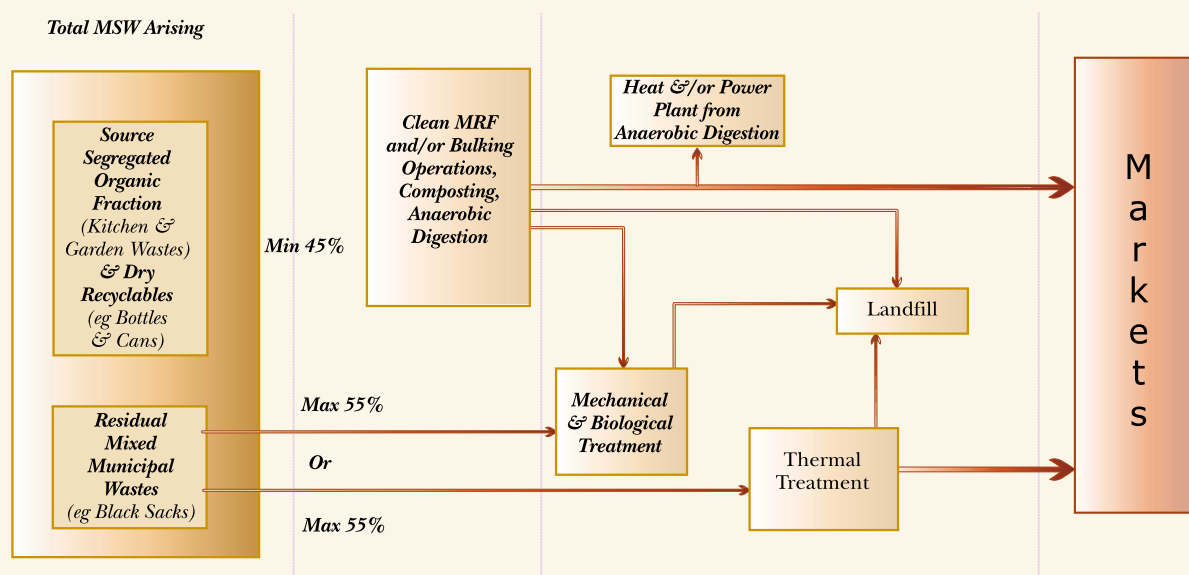


Diagram 4: MSW Waste Flows for a Combined Option with Mechanical, Biological and Thermal Treatment ⁹

The integrated infrastructure required for this Strategy would deliver a step change that exceeds all current government and EU targets. It will, of course, require significant increases in current levels of investment, and development of the local planning frameworks and legislative environment, as well as improved public understanding of the issues and implications of handling increasing amounts of waste, if the Strategy is to be delivered.

The preferred option has financial cost implications for all partners within the region. These costs cannot be accounted for in detail at this stage but estimates have been made about the total cost of managing all controlled waste in the region under the options outlined in this Strategy. The total annual cost of waste management in the region is likely to increase from around £0.4-£0.5 billion to £0.95-£1.2 billion. Therefore, costs will be around double the existing level.

⁹ Note: Percentage waste is by weight of total MSW arising and flows to MBT/EFW are exchangeable. MBT Model: 10% recycled, 20% volatized/evaporated by weight, 20% residual ash post thermal energy recovery process



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There are considerable uncertainties about the likely costs of waste management methods in 2020¹⁰; however the cost estimates set out above are based on the work undertaken during the BPEO study, the proposed £35 per tonne rate for landfill tax and estimates of penalties local authorities may face if they exceed the permitted landfill allowances.

The estimates suggest that without change to the current approach the total annual costs of waste management are likely to be around £1.2-£1.35 billion¹¹ for the region. If the minimum action necessary is taken to meet targets, costs are likely to be in the region of £1.1 billion; whereas by exceeding targets, as set out in this Strategy, costs are likely to be in the region of £0.95-£1.2 billion. (An explanation of these figures can be found at Appendix F.) These costings do not consider the costs to the environment (other than the element of this cost included in the landfill tax) of not making the step change, and given the recognition of the environment as a key driver of the economy, the wider economic impacts.

Based on industry estimates of the turnover of the industry, current annual total costs in the region are in the order of £0.4-£0.5 billion. Therefore, although costs of this Strategy will be around double existing costs, there is little difference in

cost between the options proposed in this Strategy and doing the minimum necessary, based on the above assumptions.

Threats to Delivery of the Strategy

The Regional Assembly and its partners are aware that there are significant uncertainties and risks involved in the delivery of this deliberately ambitious Strategy.

Uncertainties and issues which the Regional Assembly, working with its partners, will need to address with Government, funding bodies, the private and voluntary sectors during the next few years include:

- *Ensuring and understanding of the long term benefits so that sufficient investment is made to support the Strategy*
- *Public attitudes about products being purchased and thrown away and attitudes to recycling*
- *Public understanding about different forms of waste management including landfill and thermal treatment technologies*
- *New markets to be identified within the region for the use of recycled materials – without such markets we will not achieve high recycling rates or encourage people to recycle*

¹⁰ During consultation, the waste industry expressed a view that these assumptions underestimate future waste management costs, but it is not possible at this stage to identify any better estimates of costs. This is a matter that will need to be kept under regular review

¹¹ Costs of the current approach will increase substantially due to increases in management costs and landfill tax and costs local authorities will face due to missing landfill directive targets



Waste Disposal and Planning Authorities in the South West



Exmoor and Dartmoor National Park Authorities (not shown on the map) also act as Waste Planning Authorities

- ➔ *Government needs to be persuaded to promote innovation more extensively to help overcome some of the remaining uncertainties about some of the technologies proposed in the Strategy – whilst they have been used elsewhere in the world, there has been limited use within the UK, and therefore there is limited data available on performance over time*
- ➔ *Ensuring that local planning authorities are given the support and help they need so the infrastructure can be put in place*
- ➔ *Ensure as much influence as possible is exerted by the Assembly, local authorities and other partners over the waste management options chosen for non-municipal waste*

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Policies to Achieve the Waste Strategy for the South West Region

The Strategic Policies and the Action Plan outline an approach to achieve the major change needed for more effective waste management in the region which will be sustainable long term in relation to resource use and environmental impact. Re-focusing efforts within the region to achieve this new approach will require some difficult decisions to be faced by all organisations involved in waste as well as a major change in public attitudes and actions towards waste minimisation and recycling. Moving from reliance on landfill to an approach based on a combination of waste reduction, recovery of value from waste, and as a last resort landfill, will be very challenging.

If the policies below are implemented the net effect will be, over time, a reduced need for landfill capacity in the region. This could mean that existing sites may have extended life at lower rates of usage and that fewer additional new sites will need to be identified. This picture is of course complicated for municipal waste by the contractual arrangements which individual waste collection and disposal authorities have previously entered into; for example one authority has recently entered into a 25 year contract with a private waste management company, and a number of other authorities are considering similar PFI (Private Finance Initiative) contracts.



The Strategy sets some important challenges:

- ➔ *For private industry to develop and install new technology to deal with waste in innovative ways; and*
- ➔ *To the Waste planning authorities to find sites for new treatment facilities*

The pattern of provision of these facilities could be different from the current landfill arrangements. The approach being proposed in this Strategy tries to incorporate the 'proximity principle' in



identifying locations for waste treatment facilities which are within a reasonable distance of the source of the waste. Obviously where thermal treatment of waste is required to deal with residues, authorities through their waste planning and development control activities will have a difficult job in balancing wider needs with local amenity concerns. Existing and planned industrial sites within or near existing settlements may provide the most acceptable locations for such facilities.

Such facilities may not be popular locally, the Strategy requires a high degree of co-operation between adjacent authorities particularly where disposal of waste from larger urban areas in the region is concerned. Three of the region's Principal Urban Areas (PUAs) have significant areas of green belt adjacent to them, and there are also constraints caused by other national designations such as national parks and AONBs, and these will present a further challenge to those authorities to find appropriate sites close to the source of the waste arising.

An important component of this Strategy is the need to move away from the traditional approach of "predict and provide" to an approach of "plan, monitor, manage".

Monitoring and Review

The region's Waste Strategy is based on what is considered to be the Best Practicable Environmental Option for the South West, based on information and insights available during 2003. The core policies of this Regional Waste Strategy will find expression in the Regional Spatial Strategy (RSS) and in more detailed plans prepared by Waste Planning Authorities (WPAs). These sub-regional plans will need to be in general conformity with the RSS. Where WPAs wish to deviate from the principles and policies of the RSS, they will need to justify this on the basis of a BPEO for their area and justify any changes at the public enquiry into their plan.

"Plan, monitor, manage" is a fundamental principle underpinning this Strategy. This means that the Strategy is not an inflexible blueprint but will be regularly monitored and reviewed. There are considerable uncertainties about some of the available data on waste, (particularly commercial and industrial waste and waste arising from construction and demolition) and for some waste streams there are considerable gaps and a lack of sufficient data to make accurate forecasts. The policies in this Strategy have been developed using the best available data at the regional level.



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However as datasets improve, new technologies emerge and national and European legislation is brought in, there will need to be periodic reviews of the Strategy. Efforts will be made in consultation with the Environment Agency and industry to improve the quality of data available to enable assessments of the implementation of this Strategy to be made.

Structure of Section 2

The policy initiatives and the actions required in order to deliver the Regional Waste Strategy are divided into three main broad categories:

- 1 *Relating to individuals and households*
- 2 *Relating to business and organisations*
- 3 *Relating to planning for facilities*

Within these categories the policies are grouped in themes articulated in the Vision and the matrix below gives an indication of how these themes fit within waste hierarchy.

Links Between the Vision Themes and the Waste Hierarchy					
	Reduce	Reuse	Recycle	Recover	Dispose
policies and actions relating to individuals and households					
Awareness raising	●	●	●		
policies and actions relating to businesses and organisations					
Sustainable waste management	●	●	●	●	●
Green procurement	●	●	●		
Markets for recyclables			●		
Waste min & recycling by business	●	●	●		
Product redesign	●		●	●	
policies and actions relating to planning for facilities					
Segregated collection systems		●	●		
Eliminating difficult wastes	●		●	●	●
Infrastructure & finance		●	●	●	●



Policies and Actions Relating to Individuals and Households

Awareness Raising

The Regional Waste Vision states that by 2020:

Consumers will be made aware of waste minimisation and be encouraged to support local initiatives and every child will be educated on sustainable waste management.

It is essential that public education is seen as an integral part of any sustainable waste management initiative. The biggest challenge to overcome in developing sustainable waste management practices will be to increase public understanding and participation. Awareness raising and changing perceptions are a vital part of delivering the Vision and the Strategy. There is already some good work being done in parts of the region in promoting recycling and waste minimisation in schools. These schemes must be expanded to ensure all children and young adults are made aware of the issues, to change their own behaviour, and also to help raise awareness in their families and communities. Similarly there are and have been a number of awareness campaigns for the general public in parts of the region. However, these campaigns have too often been short-term or terminated early due to funding problems. Long term, adequately funded campaigns are a vital part of delivering the Vision and Strategy.

There have been a number of national campaigns (eg “are you doing your bit” and the national waste awareness initiative), but these have also often been relatively short-term, inadequately funded and not grounded in local delivery. WRAP has announced a new national awareness campaign starting in 2004. It is essential that this national campaign is sustained in the long-term and regional and local campaigns can be linked into it.

The policies in this section provide a framework for actions needed at the regional and local levels to highlight the need for sustainable waste management, so raising public awareness and developing the required infrastructure will go hand in hand. The need to be more responsible about the amounts of waste we all produce, through reducing the amount produced and recycling and composting much more of what is produced needs to be emphasised. However an essential part of the message must also be that a range of facilities to manage waste will be needed and that these need to be located close to the main sources of waste.



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Areas where local and regional awareness campaigns could focus, in addition to the need to reuse and recycle, for businesses as well as households, might include: the need to purchase recycled products and products with minimal packaging, encouraging increased amounts of green waste composting at home, and encouraging the use of real nappies.

Strategic Policies and Actions

POLICY P1.1 *The Regional Assembly and partners will work to ensure widespread understanding and awareness of the need to minimise waste, increase reuse and recycling and support local initiatives to achieve this alongside education in sustainable waste management*

POLICY P1.2 *All waste disposal authorities, working in partnership with collection authorities, education services and schools should have initiatives in place to promote waste minimisation and recycling in schools*

POLICY P1.3 *Local awareness campaigns should be in place and authorities should make commitments to ensure their long-term funding*

Case Study: Don't Let Devon Go to Waste Campaign

The "Don't Let Devon Go to Waste" came about as the result of the success of the Devon Authorities Recycling Partnership's efforts to secure a grant from DEFRA, which at the time was the largest grant of its kind ever to have been awarded.

From mid October 2002 to the end of March 2003 a co-ordinated advertising, marketing, PR and research campaign was undertaken across the County, with the objective of increasing awareness of existing means of recycling and analysing the shift in the content of waste throughout the campaign period.

The key results of the campaign were:

A dramatic 31% increase in kerbside recycling compared with the year before.

A reduction in the growth of residual waste (non-recycled) sent to landfill from 3.3% last year to 0.88% this year. This is the first time in four years that there has been such a dramatic decrease in growth.

An average perception of awareness about recycling of 95%, showing that there has been a significant mind shift with regard to recycling across the County.

The "Don't Let Devon Go to Waste" campaign was initially a six month initiative consisting of doorstepping, multi-media promotion/education and household waste analysis. The need to increase awareness of waste issues nationally has been recognised by government as well as local authorities. The Devon campaign links to the national "Rethink Rubbish" campaign. The campaign also won a gold award in the partnership section of the annual Green Apple Environment Awards in 2003.



POLICY P1.4 The Regional Assembly, working in partnership with other key players, will gather and disseminate good practice examples

Case Study: Remade South West Home Composting Education

Local authorities are required to reduce the amount of organic waste to landfill to 25% of 1997 levels over the next 10-15 years. Various initiatives are being tried including the sale at cost price of home compost bins to reduce organic waste at source.

Little work has been done on the education of the public in home composting and there is little evidence to back up the effectiveness or otherwise of home composter sales. Using landfill tax credit funding from South Gloucestershire Environmental Body, Bristol Environmental Body and EB Nationwide Remade South West have produced a home composting exhibition mounted inside a recycled single deck bus for use by local authorities in the South West. The exhibition is available free of charge including a driver/educator to local authorities for use at County Shows, garden shows, village fetes, large garden centres etc. A Remade member of staff and local authority officer will be available to answer enquiries and encourage home composters. Visitors to the exhibition are encouraged to complete a questionnaire which explores their knowledge and views on home composting. The exhibition became operational at the end of July 2003 and has been well received at all the venues attended.



ACTION A1.1 The Assembly and partners will lobby Government for an effective long-term national awareness campaign

ACTION A1.2 A regional network of organisations promoting sustainable waste management in schools should be established to share best practice and experience to maximise use of resources



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Policies and Actions Relating to Business and Organisations

Leadership of Developing Sustainable Waste Management

The Regional Waste Vision states that by 2020:

The region will be at the forefront of developing and delivering sustainable waste management policies and practices. Where possible, local skills will be used to solve local and/or regional waste problems.

The region currently has some of the best recycling rates in the country, demonstrating innovative collection schemes. It is also at the forefront of developing innovative sustainable waste management practices (eg the Holsworthy biogas plant and the CompactPower pyrolysis plant at Avonmouth). The region also has some of the leading community sector organisations in the country that have been involved in pioneering segregated collection and community composting schemes. To continue to be at the forefront of sustainable waste management practices and to make major inroads into the quantity of waste requiring disposal to landfill will require continual improvements in ways of managing waste. By staying at the forefront of developing policies and practices we will also be generating jobs and encouraging sustainable development.

The policies in this section aim to keep the region at the forefront of sustainable waste management practices and developing new technologies. Barriers to doing so have been identified as unreliable and incomplete data, the lack of awareness of research that has already been carried out elsewhere, as well as a lack of resources and, in some cases, a lack of sufficiently qualified personnel.

Innovation needs to be promoted and supported. This might include, for example, land use policies that support pilot and demonstrator projects for new technologies. However, when developing strategies and contracts, a balance must always be made between the need for innovation and the need for tried and tested waste management solutions.

The role of the waste industry will also be crucial in developing more sustainable waste management as the industry will need to finance, develop and operate the new facilities required in the region. Bringing forward the timely investment from the waste industry requires a level playing field for all operators. Acts of fly-tipping and organised illegal waste activities undermine the market, public confidence and create additional uncertainty in complex investment decisions. Regulatory bodies



should work together to ensure a consistent and comprehensive response to illegal waste activities. This will help ensure that much needed investment is brought forward to develop a sustainable waste management infrastructure designed and operated to the highest standards.

Greater attention must also be made to health and safety issues in the sector. The overall accident rate nationally for the waste sector is around four times the national rate for industry, whilst the South West and Wales have the highest rate in the waste sector by employee (around 3,200 per 100,000 employees compared to the national average of around 2,500).¹²

Organisations that commission publicly-funded research should supply details of the research at the time of commissioning and a completed copy of all research results to the Environment Module of the Regional Observatory. Other organisations that commission research should also be encouraged to deposit copies, or details, of research at the Observatory. This information would then be made more available to others in the region.



¹² Mapping health and safety standards in the UK waste industry, HSE, 2004



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Strategic Policies and Actions

POLICY P2.1 The environmental technology sector, including the waste industry, will be supported to develop new technologies and to develop new ways of using existing technologies

POLICY P2.2 In order to minimise the impact of illicit disposal and ensuring equality for waste operators and business, the Environment Agency and Local Authorities will work together to investigate and prosecute fly-tippers and other illegal waste activities

ACTION A2.1 The Environment Module of the Regional Observatory will act as a repository for waste related research conducted in the region and will make this available to organisations within the region

Case Study: ReZolve

Integrated waste management is a great idea – isn't it? Yes of course, but how do you do it when there are so many canoes being paddled in opposite directions? One answer is being pioneered in Cornwall through ReZolve.

The 35 strong independent group brings together the widest range of organisations with an interest in waste management in Cornwall, and its focus is on the whole range of wastes. It has played an important part in the development of thinking and strategy in Cornwall through a series of researched

reports and publications. Most recently 'The Green Book – towards zero waste'.

Alongside strategy there is the all important practical action to develop. Much of the 'reduce, reuse, recycle' agenda is virgin territory in the UK. ReZolve has ground breaking stand-alone projects like Remade Kernow creating new markets for recycled materials. Integrated with Remade are partnership projects on waste minimisation, waste awareness, and Real Nappies involving local authorities and other groups in their delivery.

"We deliberately set out to try to bring people and organisations together," said Michael Poole, Acting Chief Executive of the group's not for profit company ReZolve Kernow Ltd. "There are a host of practical actions needed. As no one body can deliver all the actions right across the board, ReZolve sets out both to work with others and to develop the thinking of all the parties."

ACTION A2.2 Waste disposal authorities should continue to supply data on municipal solid waste to the Regional Assembly, as part of the annual monitoring exercise on the Regional Planning Guidance/Regional Spatial Strategy

ACTION A2.3 Training providers are to be encouraged to ensure opportunities exist and are being promoted to help attract people to resource management sector at all levels



Green Procurement

The Regional Waste Vision states that by 2020:

Green procurement will be at the heart of all business in the South West.

Green procurement practices are essential if sustainable waste management is to be achieved. Increases in recycling rates will only continue if there are markets for the materials collected. It is therefore essential that goods are not over-packaged and that they are recyclable and reusable where possible. Public sector organisations in the South West should lead by example and buy recycled goods that are reusable, but it is also important that all businesses fully engage in this philosophy.

A number of green procurement type issues will be driven by national and European legislation (eg the Packaging Directive), but there are actions that can be taken at regional and local level. The policies in this section are designed to set the framework to make it easier for organisations in the region to undertake green procurement. Individuals should also be encouraged to purchase and use “green” products through the awareness campaigns set out in section 1. Work will be required to develop appropriate measurable targets for green procurement and this should be considered as part of the next review of this Strategy.

All new developments should maximise the use of reused and recycled materials in accordance with the regional sustainable construction charter¹³ and with a particular emphasis upon reusing materials on site (see Action A5.3).

Strategic Policies and Actions

POLICY P3.1 *Remade South West and Remade Kernow should develop a single "Recycled Procurement Code and Guide" for the region and will encourage its adoption by public and private sector organisations*

ACTION A3.1 *Horizon SW and other providers of advice to business should promote the principles of green procurement to organisations and business in the region*

ACTION A3.2 *SWRA and partners will consider ways that measurable targets for green procurement can be set in future revisions of the Strategy*

¹³ Future Foundations: Building a Better South West 2001



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Case Study: Waste Neutral at the Eden Project

*The familiar hierarchy of “reduce, reuse, recycle” is not enough in itself. The missing component is to buy in materials and products made from recyclates. The Eden Project is committed to completing this circle by making products made from recyclates its purchasing priority. The aim of **Waste Neutral** is that Eden will be buying in at least the same amount of product made from recyclates as it will be sending out for recycling. Thorough implementation of the waste hierarchy will mean that only a small percentage of material will be left for landfill.*

*The aims of **Waste Neutral** will be achieved in three arenas: “on-site” - dealing with our own waste issues; “supply chain” - actions carried out through our supply chain in terms of waste minimisation and new product development from recyclates; and finally “inform” - the work Eden will undertake to inform and inspire people to take action to reduce their own waste production at home and at work.*

The largest on-site initiative will be the creation of a Recycling Compound receiving Eden’s waste for recycling but also containing public areas such as workshop, exhibition and viewing space. This compound will be sited where all visitors to Eden must pass, and will focus on getting the recycling message across. A key feature will be the installation of an anaerobic biodigester to deal with all of Eden’s food waste. The economic sense of this will be demonstrated by the reduction in waste collection costs, and by usable outputs in terms of soil creation and biogas.



It was Eden’s belief when developing this project that Eden’s high profile and visitor numbers would enable them to bring waste issues to a broader audience in an engaging and involving way. Their mix of commercial success and environmental philosophy makes Eden the ideal conduit for raising public awareness of waste issues in a way that leads to action.

This project has been funded through Viridor Credits, with support from Cornwall County Council.



High Value Markets for Recyclables

The Regional Waste Vision states that by 2020:

Local high value markets will be developed for recyclables in the region.

Alongside positive green procurement policies, the region needs to develop reprocessing facilities for recyclates or for the reuse of waste. Much of the recyclables collected in the South West currently are exported out of the region to elsewhere in the UK and abroad, because there are very few local markets. There are clear links here to the Regional Economic Strategy and the Regional Environment Strategy. Generating those markets in the South West will help to boost the local economy and generate jobs. It will also reduce the environmental and cost implications of transportation and will make the collection of recyclables more cost effective. Support will be given to this area through Remade SW and Remade Kernow and national bodies such as WRAP (Waste and Resources Action Programme) will be encouraged to offer greater support to such initiatives in the South West.

Currently around 350,000 tonnes of recyclate and 150,000 of organic garden waste for composting are collected from the households in the region. Table 4.1 provides a breakdown of the recyclates

collected in 2002/03 in the region. However, as most of these recyclates are processed elsewhere, the region's economy is not benefiting from this potentially much larger "added value" of reprocessing the recyclate.

Table 4.1 Recyclate Collected from Municipal Waste Stream

Recyclate	Volume (tonnes)
Cans	5,900
Glass	73,000
Paper	129,200
Cardboard	10,700
Plastics	3,300
Textiles	12,600
Ferrous metals	52,900
Others	62,400
Total	350,000

Despite the relatively high recycling rates in the South West (compared to other UK regions) we are currently wasting very large quantities of valuable resources, which are being disposed of in landfill sites. There is currently little analysis of the content of any waste streams other than the municipal waste stream. Analysis of the municipal waste stream has been undertaken by many of the disposal authorities in the region. There is some variation between authority areas, but the results are broadly similar. Some surveys have been undertaken of the volumes of commercial,



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industrial and construction and demolition waste, but generally there are large confidence intervals in the results of these surveys. Based on these analyses, and based on the assumptions used in this strategy on the growth in waste arisings, Table 4.2 sets out the potential annual volumes of certain key recyclables by 2020. As currently much of this is going to landfill, the region's economy is not benefiting from the value of the recycle or the potential added value of reprocessing it.

Table 4.2 Potential Selected Recyclates Within the Main Waste Streams

Recyclate	Volume (tonnes)
Paper & Card	2,051,000
Glass	264,000
Metals (from MSW & C&I)	803,000
Metals (from C&D)	571,000
Plastics	155,000
Compostable kitchen waste & commercial food waste	310,000
Concrete	4,982,000

Currently very little kitchen waste and commercial food waste is composted in the region. There is a similar situation nationally due to uncertainties over the regulatory regime which has been changed since the Foot and Mouth crisis in 2001. As this situation is resolved, the opportunities for expanding composting capacity in this area will potentially play a major part in helping the region

meet landfill directive targets of reducing biodegradable waste going to landfill, both for municipal waste and for waste from the significant commercial food sector in the region.

The policies in this section set out a framework which will help regional and local markets to be developed, providing a clear remit for the Remade South West and Remade Kernow¹⁴, although maximising opportunities for co-operative working between the two organisations. There will be a range of facilities needed in terms of both the nature of the process and capacity, and these might be grouped or located individually. The Remades will provide advice to planning authorities on the quantities, types and likely land use needs of new recycle processing businesses.

One of the key regional agencies which will be active in delivering the Strategy is the South West Regional Development Agency (SW RDA). SW RDA is committed to the development of a successful and prosperous sustainable waste management industry in the South West, and is committed to working with others in the region to maximise the economic opportunity that arises from the need to deal with the region's waste in a sustainable manner, and to begin to see waste as an important regional resource.

¹⁴ Remade South West and Remade Kernow are not-for-profit organisations in the region that provide business, engineering and technical assistance to manufacturers and local government for increasing the use of recycled materials



The **Regional Economic Strategy 2003-2012** (RES) identifies the environment as a key economic driver for making the future South West economy a success. In implementing the **environment driver**, SW RDA has specifically identified two waste related opportunities to gain economic benefit from environmental activity: the environmental technology sector and business efficiency. The extent of SW RDA involvement in supporting initiatives in the following areas is currently being reviewed.

The **environmental technology sector** has been prioritised as an important emerging sector of the regional economy, which includes the waste industry. The specific sector activities that SW RDA will support are currently being identified but these will help to deliver policies P2.1 and P10.9. It is widely accepted that **business productivity and competitiveness** can be enhanced through better environmental management. Recognising this, SW RDA will support policies P4.2 and P5.1.



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Strategic Policies and Actions

POLICY P4.1 *Local authorities and other agencies should promote the establishment and development of businesses that process recyclates and reuse waste*

Case Study: Green Glass UK

A cracking idea with bottles has created employment for eleven people in Cornwall. Four years ago Glenn Slade of Green Glass UK Ltd brought an ingenious idea from South Africa. You just take a waste bottle, cut it and turn it into a tumbler or wine glass and it's a fantastic recycling concept.

There is a real buzz at his Wadebridge factory in Cornwall where just a few years ago Glenn worked alone. Waste bottles are sourced from all over Cornwall and delivered to the factory ready for the first stage of their rebirth.

The first stage of the recycling process is to cut the bottles. Originally bottles were cut by hand but a recent investment of £300,000 for enhanced plant has allowed the process to be fully automated.

Cut edges are ground and then melted to be smooth. The glasses are then heat annealed making them as strong as the best on the market. Adding a base to the top halves of the bottle completes the transformation from wine bottle to wine glass.

With market development assistance from recycling specialists Remade Kernow, Green Glass has sold over 220,000 glasses, 100,000 of those in the last year alone. The company is now selling to shops and restaurants all over the UK and Europe. Their huge success has shown there is a real market for recycled goods.



Glenn Slade of the Green Glass Co. who picked up the the "Recycled Product of the Year" award. Pic by Nick Gregory. 9/11/01.

POLICY P4.2 *A framework will be developed for increasing take up of waste minimisation, reuse and recycling within businesses in the region's key economic sectors and to support appropriate regional initiatives*



Case Study: A New Life for Scrap Tyres

*Recycled rubber is giving drivers a bumpy ride in Cornwall. A firm of Redruth surfboard makers is testing out speed bumps made entirely from recycled rubber. Best known for their **Swell** range of soft foam surfboards, Movevirgo has linked up with recycling specialists Remade Kernow and Redruth based ReTyre to find a novel use for scrap car tyres.*

David Wetherelt and his team from Movevirgo came up with the original idea of moulding rubber tyre crumb into speed bumps and the first installation recently took place as part of a traffic calming scheme at Scorrier.

Andy Rogers of Remade Kernow, an Objective One funded environmental project said: "This project is a UK first and again shows how a bit of lateral thinking can close the loop on taking a waste product from one use and developing it into a completely new product".

David Wetherelt added: "The advantage of our speed bumps is that as well as being very environmentally friendly they are also extremely simple to install and at the end of their useable life can be reground and used again. We have developed a new product which benefits both companies concerned and provides an outlet for Cornish recycled rubber".



L-R David Wetheralt, Paul King, Steve Rose, Andy Rogers and Rob Kellow (with tyre crumb) on a sleeping policeman made with recycled tyres. Pic by Simon Burt. 04/05/2004.

ACTION A4.1 *The Regional Assembly and partners will lobby WRAP to ensure that WRAP develops a strong regional element in its strategies and provides support to market development initiatives within the region and to help generate new businesses and expand existing businesses in this sector*

ACTION A4.2 *Remade South West and Remade Kernow should act as agencies that have a key role in the development of markets for recyclables in the region*



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Case Study: Cardboard and Green Waste Composting

An innovative approach to composting is being trialled in Somerset by Ecodiagnostics who are based at Exeter University. Cardboard and green waste are being co-composted under controlled conditions at Priorswood in Taunton. Whilst this itself is not new, the monitoring of the presence of a fungi (Trichoderma) to ascertain how it affects the rate of breakdown of cellulose in the composting process, this certainly is.

It is believed that the fungi not only facilitates the composting process but that the resulting compost would have disease suppressant qualities. If it is successful it will not only provide another outlet for collected cardboard and mixed paper, but also facilitate the production of a new compost with good market potential. Present outlets for mixed papers are very limited and the market for cardboard is unstable being prone to fluctuation. This new application should boost demand for the increasing amounts of mixed paper and card presently going to waste whilst assisting green waste composting particularly in winter months when quantities of available green waste are lower. The results of the trial, which is being co funded by Wyvern Environmental Trust and Remade South West Ltd, who are committed to developing new markets for compost, will be known in November 2004.

ACTION A4.3 Further work is required on eco-park type clustering of smaller scale recycling facilities and on the benefits of regionally significant recycle processing facilities

Case Study: Keynsham Environment Park

The development of an Environment Park in Keynsham will enable Bath and North East Somerset Council to relocate and expand their existing recycling and waste management facilities, to develop new facilities to reuse, recycle, and refurbish items and explore the potential to recover even more value from waste that is left for disposal, to strive to achieve their vision of zero waste.

The park will host innovative waste treatment facilities and develop other sustainable waste treatment and recycling processes, together with an education facility, employment and manufacturing opportunities utilising recycled materials.



Waste Minimisation and Recycling by Business

The Regional Waste Vision states that by 2020:

All business will have a waste minimisation and recycling action plan.

Business economics already provides some focus for businesses to reduce waste in their processes to improve efficiency and reduce costs. However greater emphasis needs to be placed on waste which is produced by them indirectly and by consumers of goods they produce. Also the quantities of waste produced directly by the commercial, industrial and construction and demolition sectors make up a very large proportion of the total controlled waste produced in the region. Many businesses can make considerable savings by introducing waste minimisation and recycling schemes, and as the cost of landfill rises due to increases in landfill tax, these savings will become greater. The options available to some businesses, particularly small businesses might be limited due to a lack of available infrastructure. Examples include the collection of recyclables in sectors such as agriculture and tourism.

The production and collection of separated wastes from industrial and commercial producers should



be encouraged. Waste management companies should where possible promote the collection of separated waste from firms. Joint action by, or on behalf of, groups of waste producers - for example tenants of industrial estates, or groups of farms - is to be encouraged as good practice which can bring benefits to individual firms.

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In accordance with Policy P7.9 planning authorities should ensure that future development of business parks and other major commercial sites includes adequate provision for segregation and storage areas for waste.

Establishing policies and a strategy for managing commercial, industrial and construction and demolition waste is considerably impeded by the lack of accurate and reliable data on these waste streams. Work needs to be undertaken at the national level to ensure that such data is available at the local and regional level. The Assembly plans to commission research into assessing construction and demolition waste processing capacity in the region. This data will also be essential in developing minerals policies in the Regional Spatial Strategy in order to determine the amounts of construction and demolition wastes that can be used to replace primary aggregates.

Specific policies have not been established for specific sectors such as tourism and farming, but policy P4.2 clearly identifies the need for such a framework to be set up for more sustainable management of waste from business. However, in the case of tourism there is currently insufficient detailed data and considerable inconsistencies in how it is measured (eg whether waste from B&Bs

and self catering accommodation is handled as municipal or commercial waste), and levels vary widely across the region as well as seasonally. The quantities of agricultural waste that will be classified as controlled waste are very small, but due to their nature (small quantities of plastics or chemicals from diverse producers) this is likely to be included in the framework identified in policy P4.2.

Strategic Policies and Actions

POLICY P5.1 *The public sector should continue to lead by example and implement best sustainable waste management practices in carrying out their own activities and assist in raising awareness by providing practical examples of sustainable waste solutions*

ACTION A5.1 *The Environment Agency will update the Recycling Directory and identify an appropriate way for the directory to be made available on the internet*

ACTION A5.2 *The RDA and local authorities will work with business support organisations and Sustainability SW to ensure greater take up of relevant initiatives, such as Future Foundations, the sustainable construction charter for the South West*



Case Study: Bournemouth International Centre

As part of Project Pride, a south Wessex waste minimisation initiative in 2001 in the Dorset sub-region a study was undertaken to evaluate waste streams from events, conference and leisure activities at Bournemouth International Centre.



Bournemouth International Centre provides a venue for conferences, exhibitions and entertainment as well as offering leisure, fitness and parking facilities for the local community

The project revealed:

- ***BIC operates a sustainable waste strategy within the constraints of commercial cost and waste management companies' operational capacity***
- ***Vigilance required in respect to compliance***
- ***Energy recovery is made from waste swimming pool water***
- ***Opportunities for 'grey water' collection exist***
- ***Further potential economies in administration available through better paper management and intranet use***
- ***Over £1,000 per year potential savings from car park lighting through more effective parking management***
- ***Exhibition waste streams reveal opportunities for materials recovery - cardboard, paper, matting - and recycling, with an option to use waste exchanges***

ACTION A5.3 *The Envision project will be expanded beyond the current Objective 2 areas to the rest of the region, to provide specialist advice to SMEs on waste and other environmental considerations*

Case Study: EnVision

According to research undertaken by the Environment Agency across England and Wales's 86% of small and medium sized enterprises (SMEs) did not think that their business had any impact on the environment. However when prompted with examples of hazardous activities 58% acknowledged conducting activity potentially harmful to the environment, 69% store chemicals, fuels or oils, 35% store waste and 29% have high energy consumption. Only 18% of SMEs could name any environmental legislation that applied to them without being prompted.

Development of EnVision

Envision was conceived by a number of South West organisations. It offers SMEs the opportunity to save costs and improve competitiveness through:

- ***Providing SMEs with 5 days worth of flexible, tailored support from a dedicated team of Environmental Business Mentors***
- ***Providing support covering a number of areas, including environmental auditing, specialist advice on water, waste, energy and transport, understanding of and compliance with legislation, environmental training and staff awareness raising***



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This project offers a number of benefits to SMEs including, cost savings 4 – 10% off the bottom line, minimising risk from legislation breaches, gaining competitive advantage, improved image, new market opportunities and developing a more skilled and adaptable workforce.

Way Forward for EnVision

EnVision has successfully obtained funding of £2 million from Objective Two European Regional Development Fund (ERDF) fund and will improve the environmental performance of over 400 SMEs over three years. Due to the success of EnVision, a bid of £2.9 million has now been put forward to Objective One to offer a similar service to over 500 SMEs in the Cornwall and Scilly Isles to commence in 2004.

The project also aims to offer this service to those SMEs outside the Objective One and Two funded areas and is looking for funding from the Rural Renaissance fund to help achieve that objective.

ACTION A5.4 Subject to adequate funding, Horizon South West should publicise the services of its members, and other assistance available to businesses, including providing a "one-stop-shop" contact point for businesses looking for assistance, and to develop further tools that businesses can use to minimise waste

Case Study: Horizon South West

Horizon South West is a network of environmental business support organisations in the South West. The services include the material exchange at www.material exchangesw.co.uk which provides businesses in the region a mechanism to advertise surplus materials and equipment which they no longer need. This will divert items traditionally discarded by business and industry towards reuse and recycling.

ACTION A5.5 The Assembly and partners will lobby national government for action to improve data on commercial, industrial and construction and demolition waste

ACTION A5.6 The Assembly should undertake research to look at the potential processing capacity for construction and demolition waste in the region

ACTION A5.7 Envirowise will continue to help advise all South West businesses on waste minimisation and all other waste and environmental issues through its free telephone helpline support, specialist publications, seminars and online advice. In addition Envirowise will offer small and medium sized businesses, free of charge, confidential on-site waste minimisation visits from expert advisors



Product Redesign

The Regional Waste Vision states that by 2020:

Products will be re-designed to ensure their longevity and that they can be reused or recycled effectively.

Without product redesign to increase longevity and enable products to be reused and recycled we will continue to produce large amounts of waste for which there is no option but disposal by incineration or landfill. We will, as a region, lobby for national and European legislation that will require such changes, but we will also encourage businesses to take action without such legislation.

The most effective way product redesign will take place is through appropriate national and international legislation ensuring a level playing field for all manufacturers. However consumer demand will also be an important driver and many businesses may take action to “green” their products to improve competitive advantage, particularly where there is demand (eg due to compliance with the Green Procurement Code). Policy P4.2 provides the overall policy framework for this section, and the actions in this section provide for the region to lobby for appropriate legislation and for business advisers to promote eco-design.

Strategic Policies and Actions

ACTION A6.1 *The Regional Assembly and the South West Local Government Association and partners will lobby for national and European legislation that will require or encourage product redesign to improve longevity and make them easier to reuse or recycle*

ACTION A6.2 *Horizon South West and providers of advice to business will promote the principles of eco-design*

ACTION A6.3 *Envirowise will continue to help advise all South West businesses on sustainable product design and all other environmental issues through its free telephone helpline support, specialist publications, seminars and online advice. In addition Envirowise will offer small and medium sized businesses, free of charge, confidential on-site sustainable design advice from sustainable design specialists on all aspects of electrical, electronic and packaging design*



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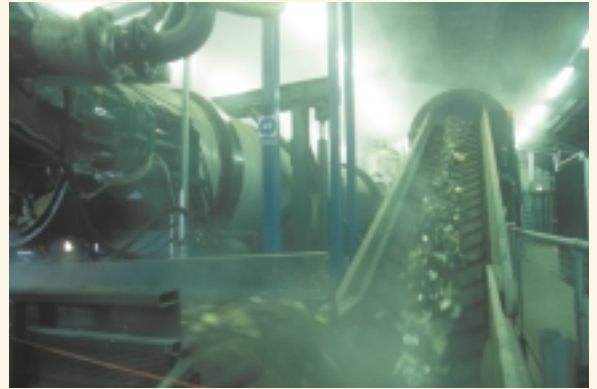
Policies and Actions Relating to Planning for Facilities

Provision of Facilities

Work carried out through the BPEO study and by the RTAB group subsequently has helped develop tables, at Appendix C, giving indications of capacity required, based on the expected amounts of waste to be dealt with in each sub-region. The amounts contained in the table are based on an assessment carried out during 2003 using the most up-to-date information available at the regional level and will need to be reviewed periodically.

The “mix” of different management methods set out in these policies has caused considerable debate in the region. For example, opinions vary about the recycling and composting rates, with some regarding them as too low, and some regarding them as too high. There are also concerns in some quarters that the strategy includes an element of thermal treatment. The main concerns expressed relate to possible risks to health from energy from waste facilities and the risk that such facilities will draw in materials that could be recycled, and so could act as a barrier to recycling.

Dealing with each of these items in turn: in 2004, DEFRA published a comprehensive review of the health effects of waste management. Although there have been concerns about emissions from incinerators in the past, the levels of emissions



from modern incinerators and other energy from waste facilities are very small. The DEFRA report states that, “among other conclusions to be drawn, the report shows that risks to human health from incineration are small in comparison with other known risks. We must acknowledge the role of incineration with energy recovery as a sustainable waste management option although the priority must be waste minimisation, reuse and recycling”¹⁵.

There is a risk that energy from waste facilities draw in materials that could be recycled, however this does not have to be the case. It is possible to develop contracts that reduce the risk of this happening, and there are many examples of this in Europe and elsewhere. The inclusion of thermal treatment in the mix of waste management methods is also supported by evidence from elsewhere in Europe of countries with far higher

¹⁵ Foreword by Elliot Morley, Environment Minister, the Review of Environmental and Health Effects of Waste Management: Municipal Solid Waste and Similar Waste, DEFRA, 2004



municipal waste recycling (including composting) rates than the UK, which also have significant levels of thermal treatment (see table in Appendix H).

The Strategy does not distinguish between the different types of thermal treatment, as it is considered more appropriate for those decisions to be made at the more local level. However, among other factors that will need to be taken into account in making those decisions, it will be important to bear in mind that electricity produced from some thermal treatment technologies are eligible for Renewable Obligation Certificates (ROCs). This electricity can contribute towards delivering local and regional renewable energy targets which will be set out in the Regional Spatial Strategy. Anaerobic digestion is also eligible for ROCs and therefore can also contribute towards renewable energy targets as well as recycling targets.

Delivering the Strategy could require around 500-600 new facilities in the region over the period to 2020, depending on the economic size of units. The exact number will depend on decisions made by local authorities and the industry at the sub-regional level on the appropriate size of facilities for particular areas. The role of the waste planning authorities will be crucial in identifying sites in waste development plans to make adequate

provision for the range of facilities required and to ensure planning permissions can be obtained in those appropriate locations. Policies in section 10 provide a sequential approach to identifying suitable sites.

Policy P7.8 encourages the provision of facilities to deal with waste sourced from more than one waste stream together, particularly when the wastes are of a similar nature. For example, it might be appropriate to have facilities that handle sewage sludge as well as kitchen and commercial food wastes, or sorting facilities that handle recyclates from the commercial as well as the household sectors. It may also be possible to have thermal facilities which initially manage certain elements of the waste streams, but in the longer term use commercially grown biomass as a fuel.

New building design and layout can contribute to effective waste management. Sustainable waste management initiatives may require on-site infrastructure as part of new development. Businesses may require an additional plant, or a larger site area, in order to put waste minimisation plans into practice. While special care will need to be given to development in sensitive areas, good design aspects of waste management should be promoted.



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Provision of Facilities: Municipal Solid Waste

POLICY P7.1 By 2020, a minimum of 45% of municipal waste will be segregated at source for recycling or composting. Waste development plans should make provision for sufficient facilities for segregation or composting of this proportion of waste arisings

POLICY P7.2 By 2020, value should be recovered from the residual municipal waste (not dealt with under policy P7.1) by mechanical, biological or thermal treatment or a combination of these processes, having regard to the waste hierarchy. Waste development plans should make provision for sufficient facilities for treatment of this proportion of waste arisings

POLICY P7.3 Waste development plans should make provision for sufficient landfill capacity for the disposal of the unusable residuals, which may include a biologically active element

Provision of Facilities: Commercial and Industrial Waste

POLICY P7.4 Waste development plans should make provision for facilities to enable a minimum of 44% of anticipated commercial and industrial waste to be recycled or composted by 2020

POLICY P7.5 In addition to value recovered by recycling and composting, waste development plans should make provision for facilities to recover value from an additional 39% of anticipated commercial and industrial waste by means of mechanical, biological or thermal treatment or a combination of these processes by 2020

POLICY P7.6 Waste development plans should make provision for landfill facilities to enable no more than 17% of commercial and industrial waste to be landfilled by 2020

Provision of Facilities: Construction and Demolition Waste (C&D)

POLICY P7.7 Waste development plans will make provision for facilities to maximise the reuse recycling and composting of C&D waste. The reuse, and recycling of C&D waste will be encouraged to reduce the need for primary aggregates and waste development plans will promote central government and trade association quality assurance certification of reusable and recycled construction and demolition waste



Facilities for Multiple Waste Streams

POLICY P7.8 Development plans should encourage the provision of waste management facilities which are capable of dealing with more than one waste stream where the waste is of similar nature

Design Issues in General Development

POLICY P7.9 Local planning authorities should ensure provision is made for space to allow for the separation and collection of waste, consistent with the type of development in question, whether a housing development, employment, retail, leisure or mixed use

ACTION A7.1 The Regional Assembly will monitor the progress and action against targets and action against the policies on an annual basis as part of its monitoring role for Regional Planning Guidance/Regional Spatial Strategy. It is also proposed to review the Waste Strategy by 2007/8

ACTION A7.2 The Environment Agency will regularly consult the Regional Assembly over data requirements at the regional and sub-regional level. The Environment Agency will regularly and frequently survey waste arisings, deposits, capacity and treatment methods for the commercial, industrial, construction and demolition and hazardous waste streams and

provide data for the region, each sub-region and waste planning authority area

ACTION A7.3 Waste disposal authorities, regional and national bodies should work together to encourage advanced energy conversion technology demonstrators in the region

Segregated Collection Systems

The Regional Waste Vision states that by 2020:

Every household will have convenient access to a segregated collection system for recyclables made available to them and use it well.

The fastest growth rates in waste generation are happening in household waste. Effective segregation of waste at source will be essential to ensure it meets standards needed for reuse or recycling. Segregation of “reusable resources” must become the norm to help deliver major reductions in waste requiring disposal. The need for segregated storage and collection systems must be taken into account in new developments and refurbishment of older properties.

Many valuable resources are being wasted by being disposed of to landfill. A number of public attitude surveys have shown that many people will recycle more if the infrastructure is in place to make it easy for them to do so. The policies in this section are



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designed to ensure that: all households have convenient access (eg through kerbside recycling collections); households have regular information explaining the system and the need to use it; new developments are designed in a way that enables segregated systems to be easily introduced; and that local authority contracts with private sector contractors incentivise greater reuse and recycling.

In pursuing integrated waste management strategies, contracts should be developed that strongly promote waste minimisation, reuse and recycling.

As well as being direct service providers, community schemes have an important role to play in encouraging public participation and awareness. Therefore local authority strategies and plans should support such initiatives. However care should be taken not to overplay the role of community-led schemes in terms of quantities of waste that can be managed, as significant other facilities will also be required (see Policies 7.1 – 7.7).

Provision of information to householders is important particularly in areas where there is a high turnover of households, but it is also important in areas with a relatively stable population, to maintain awareness levels of the facilities and services.

When new housing developments are planned, it is important that the need for householders to recycle and compost are taken into account. Therefore sufficient storage space should be allowed either for individual dwellings for small groups of dwellings, and design of the development should also take into account the needs of recycling and residual waste collection vehicles.

The Strategy does not include specific policies requiring separate collections of recyclable and/or compostable materials from households, as this is addressed in national legislation in the Household Waste Recycling Act 2003, but Policy P7.1 sets a minimum target for levels of recycling and composting, and separate collections will play an important role in delivering this policy.

It is important for segregated collection schemes to be developed for trade waste as well as municipal waste and actions in this area are covered in section 5 on business waste.



Strategic Policies and Actions

POLICY P8.1 Design of new housing layouts should make provision for kerbside collection or community facilities for the collection of recyclables and compostable waste. New dwellings should incorporate segregated storage for recyclables

POLICY P8.2 In order to meet regional targets, local authority waste management contracts shall promote more sustainable waste management practices

Case Study: South Gloucestershire 25 Year Private Finance Initiative (PFI) Contract

In July 2000, South Gloucestershire Council awarded a 25 year PFI Contract for integrated waste management. When procuring the contract, the Council identified primary objectives of "sustainable waste management practices and most economically advantageous solution". The project encompasses the following services:

- Recycling and refuse collections
- Waste reduction through home composting
- Provision and management of civic amenity sites
- Processing and disposal
- Street cleansing (as an optional variant bid)

The Council recognised that an integrated solution lends itself well to a long-term sustainable partnership with the private sector through PFI by allowing:

- The opportunity for private sector innovation in managing the whole waste stream
- The Council to focus on service outputs rather than management of capital assets
- An appropriate allocation of risk between the public and private sectors

Key targets are:

- 40% by weight of all household waste to be recovered by 1 April 2005
- 45% of all households with gardens to have received a home compost bin by 1 April 2003

These targets are to be achieved by introduction of multi-material kerbside recycling collections and alternating collections of organic/residual waste.

Additional service requirements include:

- Arrangement for receipt and handling of service requests, queries, problems
- Provision of a Waste Services Charter
- Policy development and service planning
- Provision of information and reports

The project provides for significant investment in new vehicles, equipment, processing and disposal facilities and includes for the following:

- New refuse and recycling collection vehicles
- Facilities for storage and processing materials for recycling
- In-vessel aerobic composting plant
- Refurbishment and improvement of existing civic amenity sites (now branded as SORT IT*! Centres) and 1 new site
- Long term disposal arrangements



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POLICY P8.3 *The provision of community-based collection schemes should be encouraged*

Case Study: South Molton Recycle Ltd

South Molton Recycle has evolved greatly over the past 15 years as has the management of waste in general. We have attracted a lot of people into our business who would never have thought of joining the waste management industry or local government. Motivated by environmental and social objectives, our band of diverse talents have developed partnerships with local authorities and have gained the support of our local communities whether in large estates or small rural locations. As a consequence we have excellent working relationships with the buyers of our first class recyclable materials.

South Molton Recycle have developed many innovative ideas, like bringing multi material recycling to over 70 villages and hamlets via Recycling Pavilions, or designing and building all our kerbside collection vehicles here in Devon. The range of materials we collect (newspapers, glass and plastic bottles, cans, textiles and foil) and a weekly frequency encourages high participation levels and produces excellent segregated quality which our partners in the re-processing industry want.

The range of activities we are involved in - running a civic amenity site, a recycling depot, a repair and reuse centre, commercial collections and an education worker visiting schools - as well as weekly kerbside collections allows us to tangibly effect our community.



South Molton Recycle is proud of its role in the community, its fifty plus staff, the huge amount of waste diverted from landfill and the significant value created from what was once called rubbish.

ACTION A8.1 *Collection authorities should provide regular information, produced in a simple and clear format, to households about collection systems, etc*



Case Study: Bath and North East Somerset Plastics Recycling Collection

As part of the move towards a Zero Waste target, an expansion of the existing limited facilities for collection of plastics was planned and implemented, supported through a successful DEFRA NWMRF bid in 2002/03.

The major element was to establish district-wide kerbside collections in conjunction with the existing Green Box system, through which residents can now recycle more than 10 materials. There are now also collection banks for plastic bottles at each of the Household Waste and Recycling Centres.

The infrastructure build required was four new vehicles and crews plus new baling equipment, enclosures and other associated improvements at the two recycling depots.

Awareness-raising was crucial through individual household leafleting as the plastics collections were rolled out through the district. Associated publicity and PR activity is ongoing through the Rethink Rubbish campaign.

ACTION A8.2 *When drawing up Local Development Frameworks, planning authorities should consult the relevant waste collection authority for advice on the most suitable design of facilities to enable effective segregated collection (eg kerbside collections) and require such facilities to be provided*

Eliminating Difficult Wastes

The Regional Waste Vision states that by 2020:

Waste streams that are hazardous or costly to recycle will be phased out and replaced by new clean materials that can be reused/recycled effectively.

Hazardous waste is generally the most difficult to treat. Tighter regulations will also make it much more expensive to manage, and the traditional option of co-disposal in landfills with non-hazardous waste is banned under the Landfill Directive from July 2004. In the immediate future hazardous waste landfill capacity will be severely limited with only two sites likely to take broad categories of hazardous waste and both are located on the eastern periphery of the region.

Where there is no practical reuse or recovery option, producers should be encouraged to minimise the generation of hazardous waste at source. Certain other non-hazardous wastes can also be difficult to reuse or recycle (for example some types of plastics). Where this is the case producers should be encouraged to replace such materials with those that can be reused. Action A9.3 proposes that the region should lobby for national and European legislation that will require



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such changes. There is also a need to encourage businesses to take action without such legislation.

Certain types of hazardous waste, such as clinical waste and our “asbestos legacy”, will continue to be produced that will have no reuse or recycling option. It will be important to minimise the amount produced and ensure effective segregation at source, and dispose of the remainder by the Best Practicable Environmental Option, for example landfill for asbestos wastes.

Many actions to address the problems of dealing with hazardous waste need to be dealt with at national or international level. These include minimising and eliminating hazardous materials from consumer products, such as the use of lead solder in electronic equipment. However, there are actions that will need to be undertaken at local and regional level.

Significant changes in the way the treatment of hazardous waste is managed and disposed of are required under the requirements of Landfill Directive. In particular there will be a requirement to pre-treat or process hazardous materials so they can be safely deposited in landfill sites without creating a toxic legacy for future generations. The range of items that will have to be treated as hazardous waste is also due to increase substantially when the government publishes extended hazardous waste regulations in 2005. However, information is currently only available as national estimates and the standards for hazardous waste treatment have yet to be finalised by Government.

Due to these uncertainties, it is not possible to identify specific needs for facilities in this Strategy at this time, but this will require urgent action as soon as standards are available. The Environment Agency, Regional Assembly, Waste Planning Authorities and other partners should work together to ensure the smooth transition to a new integrated hazardous waste management regime through the provision of data, potential development sites and economic support respectively. The criteria for identifying suitable sites for hazardous waste and possibly broad locations for provision of such facilities will need to be included in the Regional Spatial Strategy.



Current information on hazardous waste management presented in Appendix B shows that no single sub-region produces sufficient quantities of hazardous wastes to warrant a facility serving just that sub-region. Our existing hazardous waste treatment and disposal facilities import waste from within and outside the region to remain commercially viable. Planning authorities should ensure that policies in waste local plans have considered the need for hazardous waste treatment and disposal capacity reflecting regional and preferably national requirements, and recognise the need for the pre-treatment of hazardous waste to a stable non-reactive state prior to final disposal at landfill.

This Strategy does not address the issue of radioactive waste other than that with low levels of radioactivity, such as wastes arising from hospitals.

The policies and actions below set out how the region will lobby for changes in national and European legislation and address those issues which need to be dealt with locally and regionally, including ensuring that the planning system enables sufficient facilities to be established in the region to manage hazardous waste produced in the region.

Strategic Policies and Actions

POLICY P9.1 *All public sector organisations which produce hazardous waste should establish policies to design out, where possible, hazardous waste. This should be done by identifying hazardous waste produced and seeking to minimise its production. Other organisations that produce hazardous waste should be encouraged to also establish such practices*

POLICY P9.2 *Waste Planning Authorities should make provision for the need for hazardous waste transfer, treatment and disposal capacity in the context of regional and national arisings in accordance with a regional assessment of needs provided by the Environment Agency and locational guidance provided by the Regional Assembly*

ACTION A9.1 *The Environment Agency will urgently review the need for facilities under the new hazardous waste regime and advise the RTAB and planning authorities of the level of need*

ACTION A9.2 *As part of the Regional Spatial Strategy process, the Regional Assembly will urgently develop locational guidance for facilities to manage hazardous waste and in particular will have regard to:*



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- *Supplementary information provided by the Environment Agency or central government through the Hazardous Waste Forum on national waste management capacity*
- *The need for increased treatment capacity at the point of waste production*
- *The need to pre-treat waste prior to final disposal to landfill; and*
- *The need to store and transfer significantly increased quantities of hazardous waste to remote facilities outside the region*

ACTION A9.3 *The Regional Assembly and partners will support proposals for national and European legislation which reduces the use of materials that will become hazardous waste and materials which will be difficult to reuse or recycle. The Regional Assembly will also lobby for legislation that ensures effective producer responsibility for difficult to recycle waste*

Infrastructure and Finance

The Regional Waste Vision states that by 2020:

Infrastructure will be in place to enable waste to be reused or recycled before energy is recovered from the residue.

The lack of appropriate financial and physical infrastructure is a major barrier to increasing recycling rates, whether for household, commercial, industrial, agricultural or other types of waste. Establishing that infrastructure is vital, but that requires adequate funding. We will lobby for adequate funding, and also encourage the organisations that can provide and operate that infrastructure to develop it.

Local authorities have traditionally been inadequately funded for municipal waste management, and it has often not been high on the list of priorities. There has, therefore, been little incentive for individual authorities to look beyond keeping short term costs down to a minimum. Moving towards sustainable waste management will incur significant costs, particularly in the short term.

Facilities for other waste streams have also tended to be cost-driven and a major challenge is to ensure there are sufficient numbers of the appropriate type of facilities in the region.





Much of the investment funding will come from the private sector, but a robust regional waste strategy and greater confidence in the planning system should help give the private sector confidence to make significant investments.

The funding policies in this section relate mainly to local authority activities, or household waste related activities previously funded through landfill tax credits, as well as helping regional organisations such as the Remades obtain the necessary funding to be effective. For example, substantial funding, previously available through the landfill tax credit scheme, is being redirected through WRAP. It is essential that a significant part of this funding is made available to local, sub-regional and regional initiatives.

Case Study: LEAVES Project in Swindon

LEAVES, a community organisation based in Swindon has successfully launched a newspaper and magazine recycling collection for sheltered housing schemes in the Swindon area. LEAVES received £23,000 from Swindon Services through the Landfill Tax Credit (LTC) Scheme to serve 1,300 flats per week. Although it is traditionally difficult to service flats with kerbside recycling schemes the scheme is proving very successful. Some homes are filling as many as eight boxes per week, therefore providing a valuable collection of paper that would otherwise be destined for landfill. Wardens at each of the homes make sure the paper is stored centrally ready for collection by the crew.

Swindon Services would like to be able to reassure LEAVES and users of the scheme regarding the longevity of the collections. Regrettably, in these times of restricted funding Swindon face the dilemma of advising users of the scheme that it may well be withdrawn after twelve months have elapsed. Government targets address tonnage rather than the sectors of the community served. Any additional resource is likely to be aimed at the core participation areas building on the existing 38% of the borough already served.

It is through schemes such as LEAVES that niche communities are best served, providing a tailor made pick-up reflecting the concerns of the often vulnerable individuals served. Consequently, an urgent replacement for LTC funding is needed.



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As stated overleaf, significant extra infrastructure will be required to deliver sustainable waste management. BPEO and Policies P7.1-P7.7 indicate types of treatment of waste for which facilities will be required. This will involve physical development. This section provides guidance for development and sets out policies on locational and land use issues for those facilities.

Where waste local plans, local waste strategies or sub-regional waste strategies include thermal treatment it should be within the context of BPEO identified in Policies P7.1–P7.7, to avoid thermal treatment acting as a disincentive to local recycling efforts, particularly in the long term.

Where waste facilities require new buildings, it has been demonstrated by the waste industry that innovative and high quality design is possible.

Policies P10.1 and P10.2 set out a sequential approach to locating facilities for the management of waste, with a clear steer towards managing waste as close as possible to where it is produced, in particular in the larger urban areas. In RPG10, the main population centres in the region are defined as Principal Urban Areas and other Designated Centres for Growth. It is for the Waste Planning Authorities to apply these policies to appropriate other settlements in their area.

Whilst it is preferable for reprocessing facilities to be located in close proximity to the larger urban areas, they are likely to receive resources from a far wider area than waste management facilities. Therefore, it is unrealistic to expect the proximity principle to be followed as strictly for reprocessing facilities. However, as work develops in identifying capacity and opportunities for reprocessing in the region, it may be possible to identify more closely preferable areas of search within sub-regions, and this will require co-operation across planning authority areas.

Taking on board the proximity principle within the region will mean that in certain cases, the most sustainable way of dealing with waste arising in one Waste Planning Authority's area may involve provision of facilities in another area, close to where the waste is arising. When considering conformity of the region's waste local plans with the emerging Regional Spatial Strategy, the Regional Planning Body will consider carefully the extent to which the proximity principle is built into these plans.



Strategic Policies and Actions

POLICY P10.1 Waste should be managed close to its place of production. The location of waste management facilities should take account of the origin of the waste arising aiming to minimise the distance travelled. In the case of the larger urban centres where controlled waste production is concentrated, or major planned areas of population growth, new management facilities should be located at or in close proximity to them. A sequential approach should be adopted to identify sites for locations of facilities to manage waste from larger urban areas, in order of priority:

- (i) within the boundaries of the urban area
- (ii) within 10 miles (16 km) of the boundary of the urban area
- (iii) beyond 10 miles. This policy does not apply to reprocessing facilities which are likely to take waste from a far wider area

POLICY P10.2 Waste Development Plans should identify sufficient sites for the treatment and disposal of waste. Such provision should take into account social and economic implications, principle of regional self sufficiency, the proximity principle and the waste hierarchy. In the case of the larger urban areas, provision may be required to be made in adjacent Waste Planning Authority areas



POLICY P10.3 In the case of the rural and smaller urban areas, which comprise much of the region, the emphasis should be on providing a network of local waste management facilities concentrated at, or close to, centres of population and strategically located facilities accessible within a sufficient catchment area

POLICY P10.4 Waste Development Plans should ensure that where there is a need for additional capacity to meet the need for landfill or residual waste within the sub-region, priority will be given to the reuse of previously developed, derelict and despoiled land



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Thermal Treatment

POLICY P10.5 (i) All energy from waste plants must include processes to extract recyclable material and compostable material in line with the BPEO to identified performance levels where this has not been carried out elsewhere

(ii) Except in the case of hazardous waste incineration, thermal treatment should include energy recovery

Design Quality

POLICY P10.6 Local Planning Authorities should seek to ensure that proposals for new, refurbished or extended waste facilities represent current good design practices

POLICY P10.7 All residents should have reasonable access to civic amenity (CA) facilities. Local Planning Authorities should seek to make provision for CA facilities in all significant urban areas. In predominantly rural areas CA and bring sites should be provided in accordance with sub-regionally defined access criteria

POLICY P10.8 Local and regional authorities and agencies and others should promote sustainable construction and demolition in accordance with the regional sustainable construction charter¹⁶ by:

Case Study: Future Foundations – Building a Better South West

Future Foundations, is the region's sustainable construction charter, it provides a joined up approach to sustainable construction across the South West. The regional charter for sustainable construction sends a clear message about thinking sustainably to the clients, contractors, consultants, local authorities, and everyone involved in the built environment.

The Future Foundations pack details six principles of sustainable construction, including community involvement, materials and local sourcing. Regional case studies, further references and probing questions help make sense of the complex issues around sustainable construction.

Organisations and companies involved in developing the built environment are encouraged to 'sign up' to the principles of sustainable construction through making a pledge to the charter. Pledging is a two-way process, that lets others in the region know your commitment to sustainable construction and enables us at Future Foundations to support the pledge companies and organisations to drive forward sustainable construction.

Future Foundations was developed by a number of founding partners including the South West Regional Development Agency, the Environment Agency, Construction Industry Council, Somerset Trust for Sustainable Development, the National Trust and the Government Office South West, who are keen that through sustainable construction the region can meet its full potential.

*For more information on doing your bit and getting involved in sustainable construction, visit:
w w w.futurefoundations.co.uk*

¹⁶ Future Foundations: Building a Better South West 2001





(i) requiring that new development should be designed and planned so as to minimise the production of waste - development plans should encourage development proposals to minimise the use of raw materials and, reuse and recycle waste generated during construction and demolition

(ii) before granting planning permission for major development involving demolition or the production of waste materials, encouraging developers to provide information on the proposed method of dealing with waste so as to minimise its production and maximise reuse and recycling

Case Study: Gloucestershire Waste Local Plan, Policy 35 'Waste Minimisation'

Policy 35 'Waste Minimisation' in the Revised Deposit Draft Gloucestershire Waste Local Plan (incorporating Proposed Modifications, October 2003) seeks to ensure that the waste implications for all types of development are considered and that waste is minimised and recovered where possible. The concept of waste minimisation is supported within Planning Policy Guidance, Regional Planning Guidance and 'National Waste Strategy 2000'.

Policy 35 - Waste Minimisation

Proposals for development requiring planning permission shall include a scheme for sustainable management of the waste generated by the development during construction and during subsequent occupation. The scheme shall include measures to:

- ***Minimise, reuse and recycle waste; and***
- ***Minimise the use of raw materials; and***
- ***Minimise the pollution potential of unavoidable waste; and***
- ***Dispose of unavoidable waste in an environmentally acceptable manner***

Initiatives to reduce waste generation will be encouraged throughout the County.

This policy is not just applicable to development determined by Gloucestershire County Council but to all development. Therefore District Councils also have an important role to play in ensuring that new development contributes to sustainable waste management practices. The County Council has provided assistance to applicants and District



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Councils in considering how waste can be minimised as part of new developments, and is currently preparing an Advice Note.

The Council promotes the preparation of Waste Minimisation Statements to accompany planning applications or to be included within Environmental Statements. The Waste Minimisation Statements should outline the volumes and types of waste likely to be generated and the arrangements for waste minimisation, reuse, recycling, processing and disposal of waste during the construction and demolition, and the operational stages of the development. The Council also encourages the inclusion of guidance on waste minimisation in Development Briefs.

To date the policy has been applied mainly to strategic applications. In a practical sense the statement on waste management would be best submitted with the planning application, so that waste considerations can be properly assessed at an early stage. However statements have been required through a planning condition, see below.

**Example: Gloucestershire
Royal Hospital**

Application for partial redevelopment of hospital to include erection of new buildings to provide replacement additional healthcare facilities, demolition of existing buildings, layout of car parking and ancillary external works.

Condition

No development, other than demolition works shall be commenced until a waste management statement shall be submitted to and approved, in writing by, the local planning authority. Waste management

shall be carried out in accordance with the approved statement, and within the timescales to be defined in the approved statement.

Reason:

To ensure that the waste implications of the development are addressed at an early stage and to minimise the overall environmental impact of the development in the interests of sustainability.

Informative:

The waste management statement required under permission 21 (sic) should outline the volumes and types of waste generated and the arrangements for waste minimisation, reuse, recycling, processing and disposal of waste during the demolition, construction and operational stages of the development. It should demonstrate how reuse and recycling facilities, appropriate to the scale of the development, are to be incorporated into the detailed design. The statement should also address the issues of:

- **Adequate segregation of waste**
- **Adequate waste awareness (such as staff training)**
- **Collecting better data on waste production**
- **To help establish more effective sustainable waste management**



POLICY P10.9 *Central Government and its Agencies will be encouraged to provide adequate funding to develop the region's waste sector, in order to make the step change required by national legislation and policy and the policies contained in the Regional Waste Strategy*

ACTION A10.1 *ODPM are due to publish guidance on locational criteria for waste facilities. Such guidance will be important to help consistent and fair decisions to be taken. The RTAB should review this guidance when issued and consider if further regional guidance on locational criteria is required and advise the Regional Planning Body accordingly*

ACTION A10.2 *The SWLGA will continue to lobby for significant long-term increases in funding for local authorities through a separate ring fenced waste block in local government grants from central government, and should lobby for funding for the community sector*

ACTION A10.3 *Where funding is provided through challenge fund schemes the Regional Assembly and SWLGA will lobby for those funds to be set up in a way that will enable bids to be made for the full period of projects that run for more than one financial year*

