

TOWARDS ZERO WASTE 2020

A Waste Strategy for Bath & North East Somerset 2005 – 2010



We are one of the top recycling authorities within the country, recycling 32% of our household waste in 2004 – but we landfill all of our waste that is not recycled –over 75,000 tonnes per year.

This is enough waste to fill Bath Abbey 22 times.

We send 50,000 tonnes by train to a landfill site in Buckinghamshire. The rest is sent by road to landfill sites in Somerset and Wiltshire. We do not dispose of any waste within our own district. This is not sustainable.

Landfill space is running out and disposing of waste is becoming more expensive. New laws mean that we will face significant financial penalties if we continue to landfill so much. If we don't divert more of our waste from landfill then we could be fined in excess of £33 million over the next 15 years.

We must recycle more and find new ways of treating our waste in order to reduce the amount we landfill. We must develop local solutions for treating waste so that we maximise the value of resources that can be produced from it, and reduce our reliance on long distance haulage in developing cost effective solutions.

This strategy details the steps we need to take now and over the next 5 years to reduce the amount of waste that we produce, to recycle as much as possible and to develop new ways of treating the remaining waste to maximise its value and divert it from landfill.

This document about the Council's Waste Strategy can be made available in a range of languages, large print, Braille, on tape, electronic and accessible formats from Waste Services, Tel 01225 394204, Fax 01225 395162, Minicom/textphone 01225 477309

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1. What is the problem?

Despite our best efforts the levels of waste that we have to manage each year continue to grow. In 2004 we experienced extraordinary significant growth above the national average (3%) and had to manage 5% more waste than in the previous year.

We are reliant on landfill to dispose of our waste. We transport most of our waste many miles per day to landfill sites in other areas of the country.

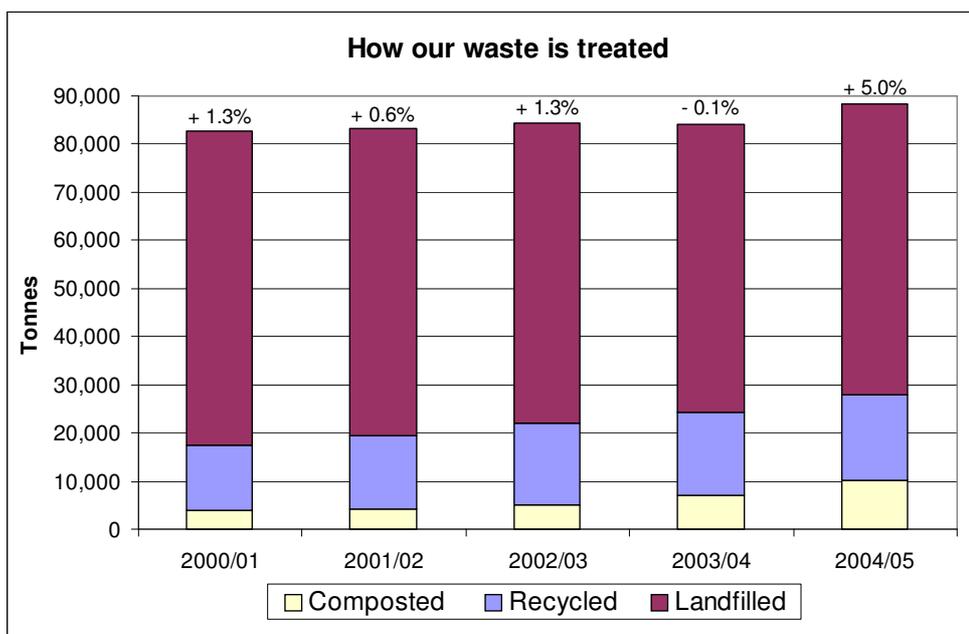


Chart 1. How all the waste we produce is treated

2. The Cost of Managing our waste.

In 2004 every tonne of waste we disposed of cost £87.84 whilst every tonne of waste we recycled of cost £62.22.

It is already cheaper to recycle waste than to dispose of it, furthermore the cost of waste disposal is forecast to rise substantially in future years.

In 2004 our waste disposal bill alone was over £2.91 million. This will rise to nearly £11million by 2020 at current levels due to the following:

- **Landfill Tax**

Every tonne of municipal waste that we landfill in 2005 will cost us £18 in tax. This tax is due to rise by £3 per tonne per year until it reaches a level of £35 per tonne. This means that if we continue to landfill at current levels by 2010 we will be paying £1.7 million in tax.

- **New Legislation**

New laws are also making the cost of disposing of waste in landfill sites more expensive. Stricter environmental controls at the sites have increased the price we have to pay to the site operators. New legislation on the treatment of hazardous waste will also

increase waste management costs because we will have to treat this type of waste in different ways.

- **EU Landfill Directive**

The European Landfill Directive requires the UK to reduce the quantity of biodegradable municipal waste that it sends to landfill to:

75% of that produced in 1995 by 2010

50% of that produced in 1995 by 2013

35% of that produced in 1995 by 2020

Biodegradable waste is waste that will rot down, such as paper, cardboard, textiles, wood, food and garden waste. This waste produces greenhouse gases and toxic liquids when rotting in landfill.

The Landfill Directive also requires certain types of wastes to be pre-treated before they can be landfilled and bans other types of waste from landfill sites altogether. This will increase the cost of managing these wastes.

- **Landfill Allowance Trading Scheme**

In order to meet its targets, the UK government implemented the Waste Emissions Trading Act 2003 which introduces a new scheme for local authorities called the Landfill Allowance Trading Scheme (LATS) effective from 1st April 2005.

Under LATS, councils are set allowances for the amount of biodegradable material they can send to landfill sites.

Individual councils have been allocated a fixed number of permits per year to allow this type of waste to be landfilled. The number of permits per year reduces in line with the Landfill Directive targets. Each permit equates to 1 tonne of biodegradable municipal waste.

These allowances are tradable. Local authorities who wish to landfill more biodegradable waste than they have allowances for can either buy permits from authorities who have spare to sell (at the going

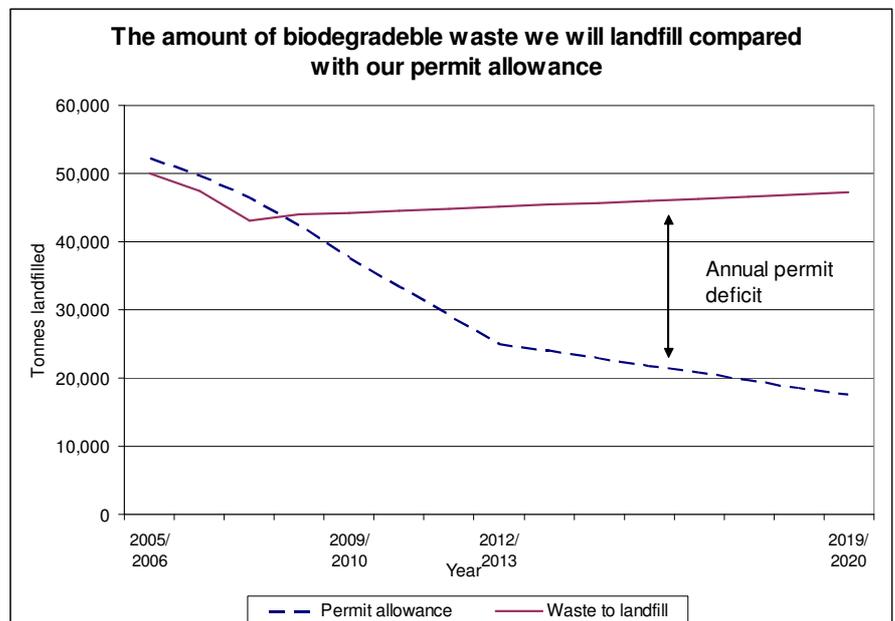
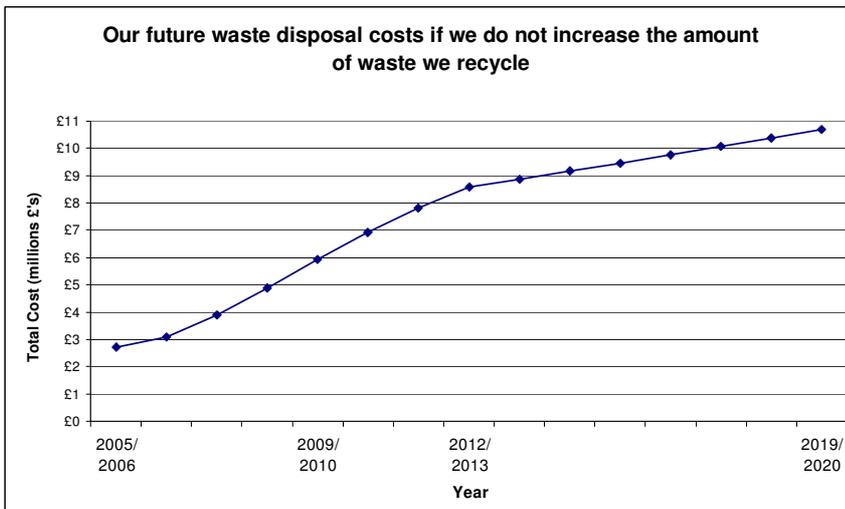


Chart 2. Shows the difference between our predicted biodegradable waste to landfill compared with our permit allowance

market rate) - or alternatively face being fined £150 for each tonne landfilled above their allowance.



If we continue to landfill at current levels we could be fined in excess of £33 million over the next 15 years.

Based on population and housing growth data and assessing current trends, we are currently forecasting that waste will grow by 2.5% in 2005/06, 1.23% for the following 3 years and by 0.7% thereafter.

Chart 3. The projected annual cost of waste disposal if we do not increase the amounts we recycle, including fines.

3. National Waste Strategy Targets

In addition to the Landfill Allowance Trading Scheme, the national Waste Strategy 2000 sets both national and local authority specific targets to recycle and compost household waste, and recovery targets for municipal waste (all the waste that a local authority deals with).

4. National Waste Strategy 2000 targets

	2005	2010	2015
To recycle or compost household waste nationally	25%	30%	33%
To recycle or compost household waste locally	30%	No target has yet been set for future years	
To recover municipal waste	40%	45%	67%

5. What does this Mean?

The waste management industry within the UK is undergoing a period of rapid change in order to meet the new legislative requirements and targets. New technologies are being developed to treat waste in different ways, by reducing its biodegradable content and producing valuable products such as fuels, electricity and soil conditioners.

As a local authority we cannot continue to rely solely on landfill to dispose of the majority of our waste. We need to develop new infrastructures to treat our waste in different

ways and to reduce our reliance on landfill.

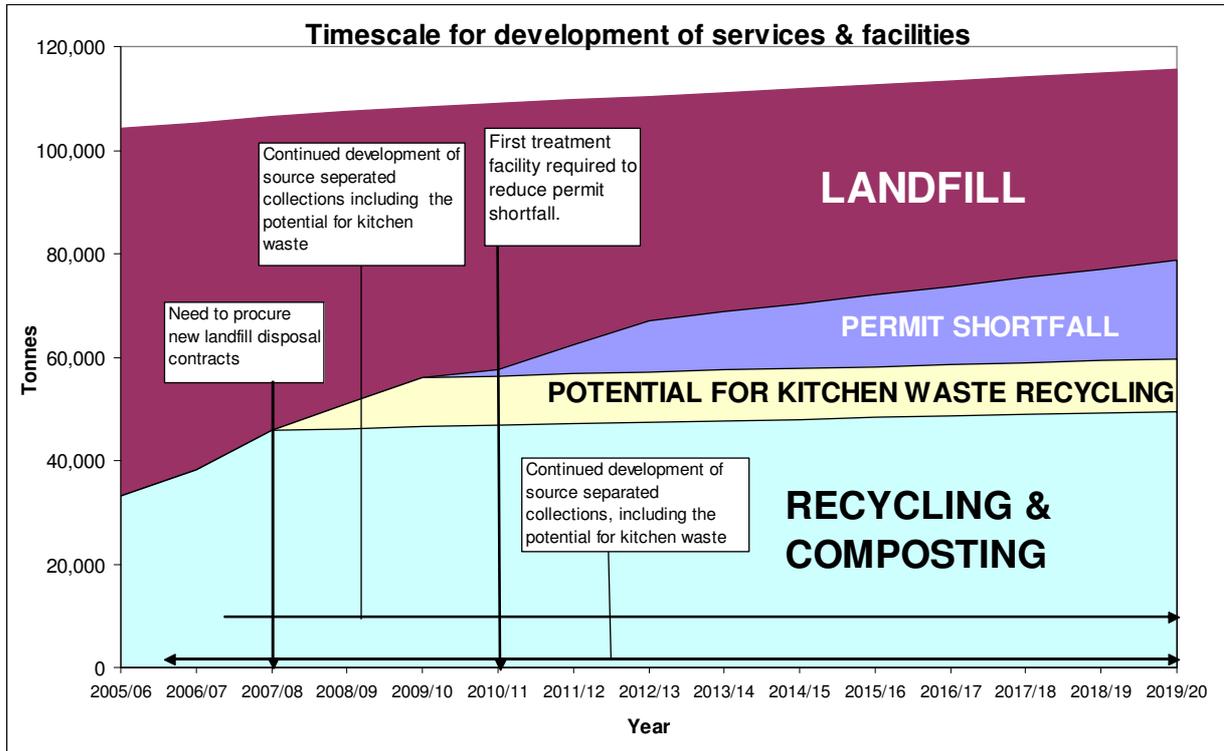


Chart 4. Proposed timescale for the development and implementation of new services and facilities, shown alongside the predicted tonnages of waste for treatment

We need to investigate new technologies that will increase the value that we can get from our waste and decide upon the most appropriate solutions for us to use.

It takes time to plan and build new facilities. We need to begin this process now by deciding what we need and how we are going to procure it.

6. Background information

Bath & North East Somerset is a unitary authority covering an area of 352 square kilometers (220 sq miles). The district has a population of 170,900 living in 73,659 households. Nearly half of the population lives in the city of Bath, making it 12 times more densely populated than the rural area of the district.

By 2016 it is forecast that the population will increase by 6% and the number of households will grow by 7%.

7. What we have done so far?

The Council has decided to focus its energy and resources on 10 key improvement priorities within its Corporate Plan for the period 2003-2007. Reducing the amount of waste sent to landfill sites is one of these priorities. We are taking seriously the need to divert waste from landfill.



We are one of the top authorities in the country for recycling performance and were awarded Beacon Status in 2001 in recognition of our achievements. Other Councils are now beginning to achieve similarly high levels of recycling as a nationwide drive to increase recycling initiatives takes effect.

We have adopted a vision of "Zero Waste" to steer the development of our waste services. This means that we will strive to reduce, reuse and recycle as much waste as possible, and that we will work with businesses and the community to achieve this goal. We view waste as a resource and seek to gain maximum value from it, rather than viewing it as something simply to be disposed of.

We have worked hard with our community to develop new services and achieve good levels of recycling.

We have developed our Rethink Rubbish Waste Awareness campaign to increase waste awareness within our schools and our community.

In 2002 we expanded our green box service to collect plastic bottles throughout the district. We now collect 13 different items through the green box scheme.

In 2003 we introduced a new fortnightly collection service for garden waste and cardboard.

In 2004 we recycled 32% of our household waste through a combination of our weekly green box collection scheme, our fortnightly green waste and cardboard collection service for composting and through our Recycling Centres.



We have provided over ten thousand composting bins to enable people to reduce their waste by composting at home.

We have developed new facilities and initiatives at our Recycling Centres to increase the amount of bulk waste that we recycle and to improve the facilities for site users. We have employed new staff to help and advise site users to recycle more and are continuing to increase the types of

materials that we reuse and recycle from these sites.

We recycle as much waste as possible from our bulky waste collection service – items such as furniture and white goods.

We are continuing to work with our community sector partners to develop new schemes for minimising, reusing and recycling waste. For example:

- ✓ We work closely with ECT Limited, our recycling partner, in delivering our recycling services and developing new initiatives.
- ✓ We have helped fund premises including a shop in Bath, in partnership with the SOFA project, to enable items such as furniture and appliances collected from households and from our Recycling Centres to be repaired, refurbished, and sold at low prices to those in need.
- ✓ We are working with the Recycling Consortium in developing the Real Nappy Campaign to help reduce the amount of nappies that are disposed of to landfill.
- ✓ We have formed the Rethink Rubbish partnership including independent, local organisations who work in Bath & North East Somerset to encourage everyone to reduce the amount of rubbish that they produce.

We are proud of our achievements so far - but we cannot stop here, we must now invest in changes which will help us to reduce further the amount of waste that we landfill.

8. Existing Infrastructure

We currently operate the following waste management infrastructure:

- 2 waste transfer stations where waste is compacted into bulk containers for haulage via road or rail to landfill
- 1 railhead where the compacted waste is loaded onto railway wagons
- 2 materials recycling facilities (MRFs) where materials collected via the green box scheme are sorted and bulked for onward transport to reprocessing facilities
- 3 Recycling Centres where the public can recycle and dispose of household bulky waste and hazardous wastes
- 2 refuse collection and cleansing depots where refuse collection and cleansing vehicles are stored and staff are based.

We have contracts with a number of companies throughout the country who reprocess and recycle our different waste streams.

Bath's Western Riverside regeneration proposal will require us to relocate our central waste management facilities which comprise a transfer station, MRF, Recycling Centre and refuse and cleansing depot.

As a Waste Planning Authority the Council has a statutory responsibility to allocate sites suitable for the treatment of municipal, commercial and industrial waste arisings within the district.

We are working closely with Planning Officers to ensure that our waste strategy will be deliverable through the planning system. The Bath & North East Somerset Local Plan including minerals and waste policies, Revised Deposit Draft 2003, sets out the Council's land-use policies for waste management. This is expected to be adopted in 2006. The Local Plan makes provision for the development of new sites at Keynsham and at Newbridge.

We are carrying out further investigations into these sites to fully explore their feasibility, and are working with other local authorities to ensure that our approaches are coordinated, sustainable and provide realistic and economical solutions.

9. Waste Facts & Figures

We closely monitor every tonne of our waste and have detailed information compiled on waste flows since the authority was formed in 1996.

We submit data to a national database called WASTEDATAFLOW which the government introduced in 2004.

We carry out detailed analysis and forecasting of waste tonnages to ensure that our recycling targets are met and that budgets and trends are closely monitored. This has enabled us to develop our services in the most cost effective way to achieve maximum benefits to date.

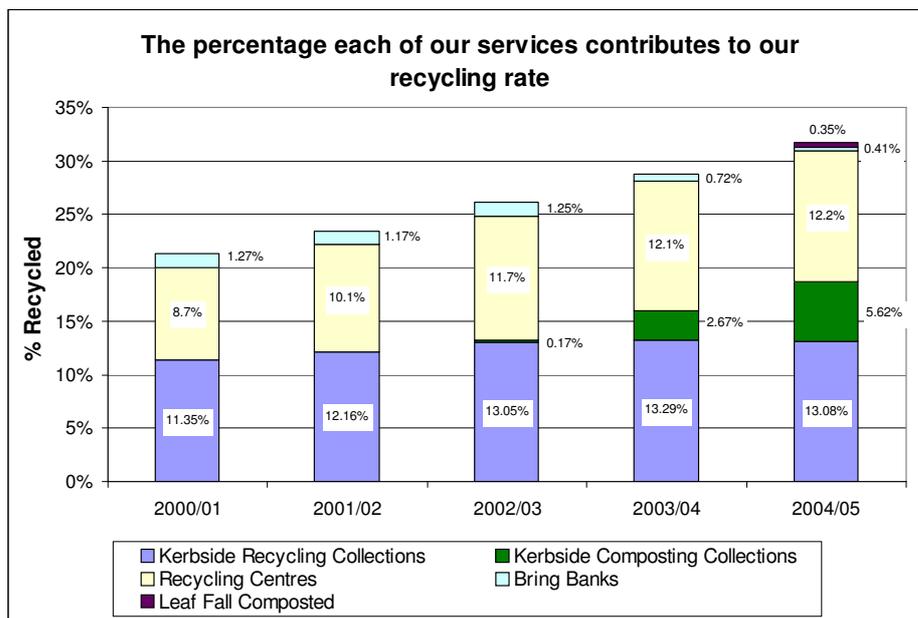


Chart 5. How each recycling service contributes to our overall recycling rate

Our recycling performance has improved steadily over the past 5 years as we have introduced new schemes and intensified our waste awareness programme to encourage participation in recycling schemes.

We are currently exceeding our statutory target and achieving a recycling rate of 32% - but we want to do more and are striving to achieve 36% recycling in 2005 and are aiming for 40% recycling by 2007.

Although we have not as yet carried out any detailed compositional analysis of our own waste in Bath & North East Somerset, based on average national figures we are able to calculate where our capture rates of materials could be improved.

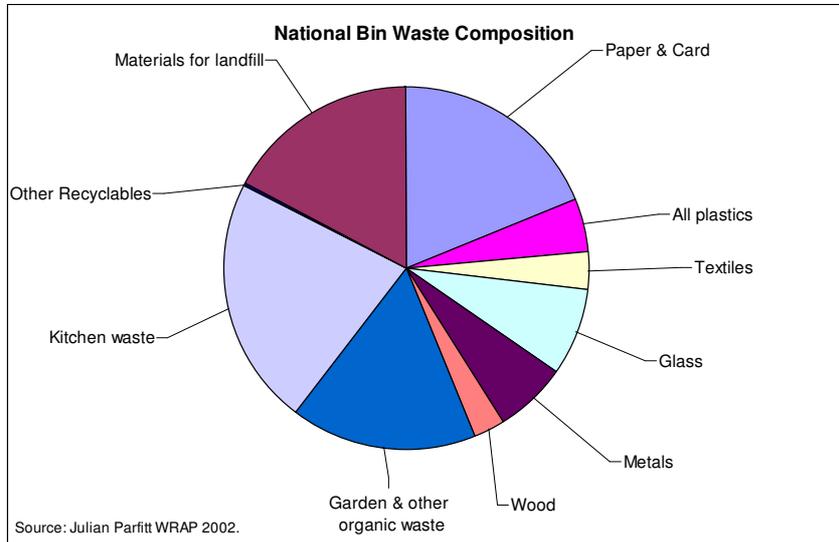


Chart 6. Composition of the average UK waste bin

This information will allow us to focus our attention on maximising the capture rates of specific materials that we collect throughout our existing schemes, and identifies areas for potential expansion.

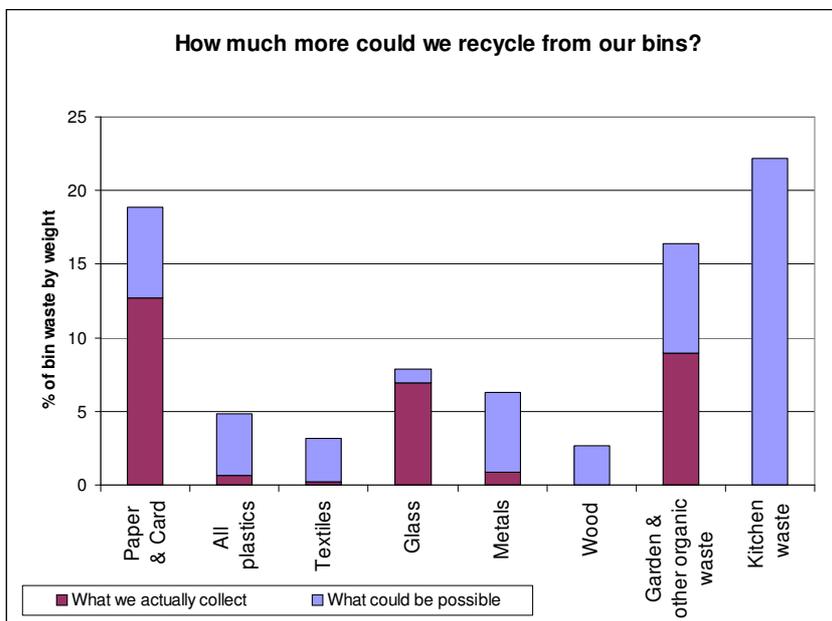


Chart 7. What we currently recycle shown against the amounts we could recycle from our bin waste

For example, kitchen waste can clearly be seen to be a high tonnage biodegradable material.

The development of a comprehensive recycling scheme for food waste has the potential to divert an estimated 10,000 tonnes of this material from landfill each year.

10. What do we need to do now?

We now need to build on our existing schemes to make sure that they are used and developed to their maximum potential. We must also develop new ways of diverting waste from landfill which will enable us to treat our waste cost effectively, to maximise the value that we can get from it, and ultimately to meet our landfill diversion targets.

A. Key development areas for the strategy over the next 5 years.

We must:

- **1.1 Arrest Waste Growth**

We must tackle the growth in waste arisings through working with government, business, retail, commerce and local communities to identify areas where local action can be taken.

- **1.2. Develop new programmes to increase community engagement on waste issues**

In striving to achieve our vision of Zero Waste we must engage with all members of the community. We cannot do this alone and must work closely with our partners including the Community Sector, the business community, our Local Strategic Partnership, the waste industry and other local partners in order to be successful. In addition we must work with local business to identify ways in which we can encourage and enable the development of infrastructure for the recycling of commercial and industrial waste.

- **1.3. Invest further in education & campaigning on waste awareness issues**

Working with local and national media we must further develop our Rethink Rubbish waste awareness campaign to raise awareness of waste issues within our schools and communities and to deliver increased participation in recycling schemes. We will develop and trial initiatives that reward and incentivise communities to participate in recycling schemes, and will encourage long term individual behavioural change in dealing with the waste that we each create.

- **1.4. Focus on the longer term**

It will take several years to design and build new facilities to enable waste to be treated in different ways. We must plan now for the longer term.

- **1.5. Develop appropriate local infrastructure**

We must examine our existing waste management infrastructure and the collection and disposal services that we currently provide to ensure that they are appropriate to deliver maximum diversion from landfill and Best Value to the authority and its residents. It is likely that our city centre waste management facilities will need to be relocated due to a planned redevelopment of the existing site.

This presents the opportunity to thoroughly review our methods of managing waste and to develop new infrastructure to increase the amount that we recycle and divert from landfill. It may be that some kind of joint waste venture could become a possibility in delivering our preferred solutions. These issues will be considered in due course by the Executive Member for Sustainability and the Environment.

The review will include the following:

- **(i) Review Collection and Recycling methodologies**

We must review our existing methods of collection to ensure that they are designed to maximise participation in recycling schemes.

Our current recycling contract with ECT Recycling Ltd expires in 2006 and our in-house waste services require market testing in 2006 in order to ensure we are achieving Best Value. Our landfill disposal contracts expire in 2008.

The end dates of these contracts and the requirement to market test our waste services presents the opportunity to specify new ways of working.

- **(ii) Pursue a 3 stream approach**

We must develop new schemes to divert biodegradable waste away from landfill, with a priority being to develop a business case to demonstrate the viability of implementing weekly kitchen waste recycling collections, and to secure appropriate infrastructure to treat this waste. Kitchen waste collections will be specified within the market test of our recycling contracts to enable a thorough assessment of costs to be carried out.

A 3 stream approach should enable us to achieve levels of 50% recycling and above through the:

- *Kerbside Collection of Dry Recyclables*
- *Kerbside Collection of Organic Waste (including kitchen waste)*
- *Pre-treatment of residual Waste*

- **(iii) Develop Recycling Centre infrastructure to increase levels of repair, reuse & recycling**

We are currently reviewing and developing service provision at our Recycling Centres with the aim of recycling 70% of the waste brought into these sites by 2006/07, a significant increase from current levels of 43%. A programme for performance improvement is in place. A new site is planned for the city of Bath by 2009 which will be designed to maximise the recycling of waste.

- **(iv) Procure landfill capacity beyond 2008 for waste which cannot be treated in any other way**

Options for disposal outlets beyond 2008 in the medium and long term must be determined, including the means of transporting waste to these facilities.

- **(v) Evaluate alternative treatment technologies**

We will review existing and emerging technologies to ensure their appropriateness as a solution for our waste and will consult with our local communities in determining appropriate solutions.

This process is likely to present some further options for recycling and disposal which we have not yet considered in detail. For example, alternatives to landfill disposal will be explored such as other ways of treating waste mechanically, biologically and thermally to gain additional value from it.

- **(vi) Work with others to achieve Economies of Scale and Best Value**

As a relatively small unitary authority the quantity of waste that we deal with is small in comparison to other waste disposal authorities. More practical, cost effective and deliverable solutions may be achieved by working in partnership with our neighbours who are facing similar issues.

We are actively working with authorities within the framework of the West of England Partnership (Bristol City, North Somerset and South Gloucestershire) to determine the potential for sub-regional solutions for our waste.

We are pursuing the potential for the preparation of a West of England Municipal Waste Management Strategy, and assessing the options for the development of joint waste local development planning documents. The planning documents will inform the allocation of sites for strategic waste management facilities, for all waste arising within the sub-region.

Throughout 2005 a government funded study is being undertaken to identify the most appropriate technologies for the sub-region, and the appropriate scale and mix of these facilities that would be needed to implement the most cost effective and environmentally desirable solutions. The results of this study will be fully consulted with local communities within each of the authority areas and will then inform procurement processes and timescales for delivery of facilities.

B. How will we do it?

Our 5 year Action Plan

We have developed an outline action plan to manage the developments set out above. This action plan covers the period 2005-2010 and will be reviewed and updated at least annually. Set out below are the key actions for each year

2005/06 – year 1 – Recycling target 36%

- Review refuse & recycling collection methodologies making recommendations for improvements both short and long term.
- Agree specifications and the delivery mechanisms for our future waste and recycling services. Detail service options to be appraised through market test including the implementation of kitchen waste collections.
- Embark upon the market test and procurement of our waste and recycling services.
- Assess existing infrastructure. Determine improvement potential and identify specific sites required due to relocation need. Develop and approve the detailed

infrastructure project plan.

- Work closely with the Bath Western Riverside project team to ensure our plans synchronise with the Bath Western Riverside objectives.
- Develop a West of England Municipal Waste Management Strategy for consultation jointly with constituent local authority planning and waste management teams.
- Assist in determining the options for a West of England Joint Waste Planning Strategy with constituent local authority planning and waste management teams, and contribute to the preparation of waste local development documents that determine sites and locations for strategic (and where appropriate, local) waste management facilities.
- Develop, publish and implement a 3 year communication strategy and action plan for our Rethink Rubbish Waste Awareness Campaign, including the use of local recycling league tables to encourage communities to embrace our zero waste vision.
- Increase resources to enable further development of the Rethink Rubbish Waste Awareness Campaign, specifically working with secondary schools and local communities.

2006/07 – year 2 – Recycling Target 38%

- Award and implement the waste and recycling service contract/s.
- Pursue the procurement of capacity for kitchen waste composting.
- Pursue the resourcing and phased implementation of source separated kitchen waste collections from the household.
- Consult upon the West of England waste strategy
- Resource and implement the infrastructure project plan (transfer stations, recycling centres, material recycling facilities, other treatment facilities and depots).
- Develop and agree procurement options and detailed procurement timetable for infrastructure provision, both local and sub-regionally.
- Develop specifications and commence the procurement of infrastructure and new treatment facilities.

2007/08 – year 3 – Recycling target 40%

- Implement the revised refuse & recycling collection methodologies as determined through the award of waste and recycling services contract/s. This will include the potential for a timetabled expansion of kitchen waste collections throughout

the district.

- Procure disposal facilities to be available from 1st April 2008.
- Continue the procurement process for infrastructure and new treatment facilities.

2008/09 – year 4 – Recycling target 45%

- Award the contract for the development of new facilities – Bath recycling centre, plus additional transfer facilities and treatment processes.
- Commence the construction of new facilities

2009/10 – year 5 – Recycling target 50%

- New facilities operational.
- Relocate from existing Bath facilities
- Review waste strategy. Approve 5 year action plan outline.

This document summarises key actions in order to help us meet our targets. For more detailed information please see our website at www.bathnes.gov.uk/wasteservices or telephone 01225 394041 to request leaflets and information on any of our waste services.