# RESPECTING WASTE

#### **Waste Strategy**







#### **Respecting Waste**

# **Waste Strategy**

Part 1 The framework Document







#### To obtain additional copies of this document or further information please contact:-

Ian Berry
Waste Services
Rhondda Cynon Taf County Borough Council
The Grange
58 Tyfica Road
Pontypridd
CF37 2DD

Telephone: 01443 484400 Fax: 01443 484437

Email: lan.Berry@rhondda-cynon-taff.gov.uk

Designed & Printed by Creative Design & Print, RCT

#### **Rhondda Cynon Taf - Waste Strategy**

#### **Part 1 - The Framework Document**

For	reword by Cllr Syd Morgan - Cabinet Member for Service Improvemen	n
Inti	roduction by David Bishop - Group Director Environmental Service	) (
1.	Composition of Community Waste	3
2.	Context	5
3.	Changing attitudes	5
4.	Progress by the Council	6
5.	The Council's Objectives	7
6.	The Waste Disposal Strategy	8
7.	Targets, Monitoring, Review and Further Changes	S
Tab	ole 1 Approach to Waste Disposal - Until Now1	C
Tab	ole 2 Approach to Waste Disposal - The Future1	1

#### Part 2 - The Background Document

1.	1(	3



page



#### Part 3 – The Action Plan

Re	comr	page mended Action Points
1.	Acti	ion 1
	1.1	Proposals
	1.2	Potential16
	Tab	le 1 - Dry Recyclables
2.	Acti	ion 2
		Potential
		le 2 - Green/putrescible Material
3.	Acti	on 3
	3.1	Home Composting. 19
		3.1.1 Proposals
		3.1.2 Potential
	3.2	Community Composting. 20
		3.2.1 Proposals
	3.3	In-house Composting20
		3.3.1 Proposals21
4.	Acti	on 4
	4.1	Proposals
	4.2	The Provision of New Community Recycling Centres23
	4.3	Improvements to Existing Community Recycling Centres23
	4.4	Improvements to Existing Community Recycling Points23
	4.5	The Provision of New Community Recycling Points24
	4.6	Improved Sign-posting and Advertising of Sites

#### page

5.	Action 5
	5.1 Clean Materials Recycling Facility25
	5.2 Gasification Unit. 27
	5.3 Transporting Waste
	5.4 Phased Reduction of Landfill
6.	Action 6
	6.1 The Waste Resources and Action Programme30
7.	<b>Action 7</b> 30
8.	Action 8
	8.1 Proposals
9.	Action 9
10.	Action 10
-	10.1 Refuse Derived Fuel
-	10.2 Anaerobic Digestion
-	10.3 Residual Waste Sorting34
11.	<b>Action 11</b> 35
12.	<b>Action 12</b>
	Waste Flow Chart39
	Figure 1 - Kerbside Recycling Roll-out Programme40
	Figure 2 - Composting Sites
	Figure 3 - Community Recycling Centres
	Figure 4 - Community Recycling Points43







#### Foreword by Clir Syd Morgan -

**Cabinet Member for Service Improvement** 

The world is changing and attitudes to waste must change. My colleagues and I on the Council, more than most, are acutely aware that depositing most of our waste on landfill sites is not a sustainable option. The challenge, therefore, is to provide innovative but workable solutions for managing waste effectively.

In Rhondda Cynon Taf we recognise the need to consult as widely as possible and to work in partnership. For this reason we initiated the Community Waste Forum, that has been



instrumental in delivering this strategy. With our partners, we now intend to move forward at a sensible but ever increasing pace, realising the potential of waste rather than treating it as an inconvenience.

The concept of 'respecting waste' may seem a strange way to tackle the issue but this approach represents the basic attitudinal change required by us all and acknowledges that one person's waste may be another's raw material. Paper, glass bottles and metal cans have been recycled to some extent for many years but this practice must move into the mainstream of our activity rather than remain on the margins. Other items can readily be recycled, repaired and reused and if kitchen and garden wastes can be composted there is little in the waste stream that does not have a possible second use.

I realise that the actions outlined in this strategy document are ambitious and testing but we are determined to meet the challenge and be at the forefront of managing municipal waste sustainably.



#### **Introduction by David Bishop -**

**Group Director Environmental Services** 



I am delighted to be able to introduce to you the Council's new Waste Strategy and Action Plan. Rhondda Cynon Taf has ambitious plans for dealing with waste in more sustainable ways and this document sets out how this will be achieved.

The Plan includes some major, visible initiatives including kerbside collection of recyclables from every household, the construction of a new materials recycling facility, new community recycling centres and many more. It also addresses the waste problem at its source.

I am particularly pleased with the 'Respecting Waste' strategy because it seeks to persuade people that by changing the way we get rid of rubbish and packaging we can avoid the creation of waste in the first place. The Action Plan includes waste awareness education in schools, a litter campaign, flytipping response teams and other waste minimisation efforts accordingly.

The Action Plan is not 'cast in stone' but will evolve over time in response to changes in the wider world and the changing aspirations of the community we serve. The Council will continue to work with the Community Waste Forum and will consult the public regularly to ensure that we keep on the right track.

I would like to take this opportunity to thank all those who have worked hard in contributing to the development of this innovative Strategy and Action Plan. Work is now well underway on delivering real changes in our local waste practices that will ultimately contribute to a higher quality environment within Rhondda Cynon Taf.









#### 1. Composition of Community Waste Forum

Amgen Cymru

Arena Network

Cardiff University

Cylch

**Environment Agency Wales** 

Ffaldau 2000

General, Municipal and Boilermakers Union

Keep Wales Tidy

Llwydcoed Community Centre Group

National Assembly for Wales - Waste Policy Unit

Plastek Industries

Rhondda Against Nantygwyddon Tip

Rhondda Cynon Taf County Borough Council

The Royal Mint

Too Good to Waste (formerly Valleys Furniture Recycling)

Welsh Development Agency













#### 2. Context

- 2.1 For years, the general attitude to waste in Britain has been "try, not to think about it ... somehow it will be dealt with by the powers that be ... it's not our problem." This approach has shown itself in a number of ways throughout our society: people dropping litter on the street; people at home bagging up and throwing away everything for disposal; the countryside being strewn with litter and an acceptance of the unsustainable practice of filling up large landfill "holes in the ground" with the residual waste from our activities. This attitude and the practices it encourages must change if our children are to inherit a cleaner and healthier world.
- 2.2 Local Authorities have large, costly operations geared towards simply picking up waste, transporting it to landfill sites for disposal, and employing large teams to pick up litter from land for which they are responsible. In other words, to deal purely with the unwanted residue of human activity. Rhondda Cynon Taf, no different from many other Authorities, has had a waste disposal culture based on an expedient approach to a simple problem, namely "whatever is produced, lets

pick it up and bury it as cleanly as possible". This approach has led to the situation that we are now faced with, as set out in Table 1. This cannot continue indefinitely into the future and, for this reason, the Council has decided to give priority to creating a major new Waste Strategy for Rhondda Cynon Taf.

#### 3. Changing Attitudes

3.1 More recently, the world has begun to change, with the development of a growing consciousness that there is a symbiotic relationship between human beings, our activities, and the environment in which we live. Our attitudes to waste are changing accordingly. Increasingly, large numbers of people are no longer prepared to put up with simplistic approaches to waste disposal. They recognise that they cannot turn a blind eye to this major process, as it can seriously affect the quality of their lives, by damaging the local environment that they value, and interfering with the sustainability of their communities. There is a growing awareness of the impact of this activity – **people** now "respect" waste and see it as something that demands our attention.

3.2 Legislation is being made in response to this significant change in attitudes, which will force local authorities, businesses, and other organisations to change. Through taxation, and simple volume growth, the costs of traditional waste disposal have increased, and there is a growing pressure to change our approach. In Rhondda Cynon Taf, there is a particular local dimension to this growing debate, given the visible problems of littering and flytipping, and the heightened anxiety about the impact of one of our local landfill sites. As a result, a real desire to deal with things differently in the future is emerging across the County Borough.

#### 4. Progress by the Council

4.1 One of the first actions of the newly elected Council was to develop and adopt a comprehensive Community Plan, based on an extensive public consultation exercise.

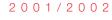
The messages in this key document were explicit about the need to improve the quality of our local environment. The Plan contains a clear and straightforward commitment to:-

"Create a new 'green' waste disposal strategy to provide:

- better refuse collection
- cleaner streets
- more recycling facilities
- less landfill
- reduced litter and fly-tipping".
- 4.2 The Council has chosen, as an early priority, to "grasp the nettle" in terms of waste disposal. It acknowledges that the decisions to be made will have a long term impact on all who live and work in the County Borough. There is a recognition that, when making such fundamental plans for the future, you need to consider all the costs and benefits involved in such major changes. Policy decisions are not just being based on consideration of the front end, investment costs of more environmentally friendly waste disposal processes, but also on the benefit of reduced environmental impacts, and the new employment opportunities that a more "enlightened" approval to waste disposal can bring.
- 4.3 There is an acceptance that there needs to be a holistic approach to the complete waste disposal process, when devising such strategies. This starts with the act of waste creation (and how, if









possible, to prevent it), and covers all aspects of recycling, reuse and reduction, before ultimately addressing the problem of disposal of the residue that is left. On this basis, traditional collection and disposal activities are seen simply as two actions within a complex web of inter-related activities. The Council also recognises that, if one starts to "Respect Waste" in this more sophisticated way, then it cannot solve all aspects of the problem alone. Partnership with a number of different stakeholders is crucial to delivering a more radical, wide ranging, and effective approach.

4.4 The Rhondda Cynon Taf Community Waste Forum is the vehicle that has been created by the Council for engaging these potential partners, in both creating and delivering long term plans. The Council is committed to promoting a new waste disposal culture within Rhondda Cynon Taf, based no longer just on "picking up what's out there and dealing with it", but on tackling waste on all fronts. Particularly, there is an intention to focus on the front end, and to prioritise waste minimisation, so as to stop the rise in waste volumes, and perhaps even reduce them.

#### 5. The Council's Objectives

- 5.1 In simple terms the Council has the following objectives:-
  - to change the culture
     within Rhondda Cynon Taf,
     so that everybody is more
     aware of the implications
     of their waste disposal
     choices, and gives due
     consideration to the quality
     of their local environment
     when making their
     choices.
  - to minimise the creation of waste within Rhondda
     Cynon Taf.
  - to promote fully the reuse, recycling and reduction of waste within Rhondda
     Cynon Taf, and to maximise the creation of new associated business and employment opportunities.
  - to dispose of all residual waste in the most environmentally friendly manner.
- 5.2 The Council considers that these aspirations will best be met by the adoption of the following approach: -
- A) Actively encouraging the public, local businesses and other organisations within Rhondda Cynon Taf to minimise the creation of waste, through a comprehensive awareness raising and waste minimisation programme.



- B) Taking strong enforcement action against those who degrade our environment by littering, illegal tipping or other unacceptable waste disposal activities, to promote a culture of consideration by all members of the community when making waste disposal choices.
- C) Adopting waste reduction, reuse and recycling operations by the Council, its partners and our local communities, to reduce significantly the residual quantity of unusable material.
- D) Taking a proactive approach to economic development opportunities, by supporting the creation of enterprises that utilise, process and give added value to waste products by using them as raw materials.
- E) Adopting the most environmentally friendly processes for the final disposal of unusable material, to minimise the use of landfill.
- F) Increasing the resources directed at cleaning up litter and illegal tipping, to create a higher quality local environment, which local people will value and protect.
- G) Meeting all environmental legislative targets within Rhondda Cynon Taf, such as the Landfill Directive and British Government recycling targets, as well as the Environmental Protection Act Standards for Cleanliness.

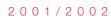
4.3 The successful adoption of this approach will lead to the creation of an entirely different waste disposal climate within Rhondda Cynon Taf - one that will lead to an improved quality of life for all who live and work within the County Borough. Table 2 shows what this better future will look like.

#### 6. The Waste Disposal Strategy

- 6.1 The aspiration set out in the Council's Community Plan, of developing a new "Green" Waste Disposal Strategy, has been achieved. This key strategy consists of:-
- i. Part 1 The Framework Document.
- ii. Part 2 The Background Information Document.
- iii. Part 3 The Waste Strategy Action Plan.
- 6.2 The Action Plan has been developed after months of preparatory work by the Community Waste Forum and has been subject to some refinement after an extensive public consultation exercise. It has now been adopted formally by the Council, for implementation in collaboration with our partners.









#### 7. Targets, Monitoring, Review and Further Changes

7.1 Within the Action Plan, there are a number of targets that have been published, the monitoring of which will enable all of us to judge how successfully this strategy has been implemented. A Partnership Working Group is to be created to monitor and review our progress against the targets on a regular basis, and to make recommendations for further amendments over time to reflect new circumstances.

7.2 The Action Plan is intended to be a flexible, "live" document, which will develop and alter in response to the changing world in which we live. As such, it will give us an effective vehicle for delivering the Community Plan Objective of improving the quality of the local environment for all those who live in, work in or visit Rhondda Cynon Taf.



# Table 1

# Waste Disposal - in the past Approach to

Base Facts	Characteristics	Impact	Outcomes
240,000 people.	Nominal recycling.	Domestic waste volumes up 15% since 96/7.	Refuse collection service running at a loss.
100,000 households. 91,000 tonnes per annum	Nominal composting.  Waste generation increasing year	C.A. site waste volumes up 55% since 96/7.	Waste disposal budget growing inexorably.
6,000 tonnes per annum trade waste	>98/9 7.5% per annum.  Refuse crews nicking un more and	Cost of waste disposal up £240,000 96/7 to 98/9 through volume alone.	Cleansing service failing to meet public requirements.
10,000 tonnes per annum C.A. site waste.	more waste, no link with recycling.  Increasing Landfill Tax encouraging	Cost of waste disposal up an additional £450,000 from 96/7 to 98/9 through Landfill Tax.	Environmental goals and Government recycling targets not being achieved.
4,000 tonnes recycled.	fly tips up by 25% per annum. No enforcement service.	Cost of dealing with fly tipping up significantly 96/7 to 98/9.	Greater and greater percentage of Council
	Trade Waste service picking up what is out there, income not maximised. No enforcement.  Abandoned vehicles on the income Apardoned vehicles.	Cost of dealing with abandoned vehicles up significantly 96/7 to 98/9.  Despite a 55% increase (to 4,000 tonnes) in the recycling tonnage since	revenue being paid to LAWDC's and Exchequer rather than being spent on in house services.
	Increase. Annual grown 75%. NO WASTE MINIMISATION EFFORT	eo/t, this tormage is only 10% of the increase in waste disposed of traditionally.	ENVIRONMENTAL QUALITY DETERIORATING.





10

# Table 2

# Approach to Waste Disposal - now and in the future

Characteristics	Impact	Outcomes
Very high awareness of waste matters, as a result of an ongoing high profile, waste minimisation	Integrated refuse/recycling collection services.	Less litter, fly tipping and abandoned vehicles.
campaign,	Increase in civic amenity sites and bring sites.	Less revenue being spent on traditional waste disposal activities, more on new
Pride in local communities in the improving quality of our environment, and a strong desire to protect and	Widespread availability of composting facilities as part of a comprehensive Green waste recycling scheme.	S.M.E.s, creating jobs, and on the Council's own operations. Government/European Union Targets for the environment met.
enhance this.	Trade refuse income up.	Sustainable/environmentally friendly strategies
Maximim effort by all to minimise the	Materials recycling facilities developed.	expenditure reduced or channelled into more
creation of waste, and to comply with	Landfill Sites closed and remediated.	environmentally friendly alternatives.
new schemes for recycling waste.		HIGHER QUALITY LOCAL ENVIRONMENT
Public pressure for action answered.		



#### **Respecting Waste**

### **Waste Strategy**

Part 2 The Background Document





This document is currently being updated due to changes in legislation, waste management practices and in response to recent Welsh Assembly Government guidelines.



#### **Respecting Waste**

# **Waste Strategy**

Part 3 The Action Plan





#### **Action Plan**





#### **Recommended Action Points**

The Actions recommended by the Community Waste Forum have been considered and expanded below.

#### 1. Action 1

The Council will introduce a kerbside dry recyclables collection scheme covering the whole of the Rhondda Cynon Taf area.

Kerbside recycling is the collection of material from outside individual houses. In its simplest form material is left for collection in used supermarket carrier bags and collected in an open backed transittype vehicle. In more elaborate schemes, councils provide identifiable bags or boxes and materials are sorted into separate compartments on the vehicle.





Dry recyclables are items suitable for recycling. The term includes newspapers and magazines, glass bottles and containers, tins and cans, plastic bottles, textiles and cardboard. They are referred to as dry because wet materials, such as food waste, are not included in this category.

#### 1.1 Proposals

**Council Members** have agreed the introduction of an initial trial scheme in three areas. This trial will begin in January 2002 and will involve the kerbside collection of mixed dry recyclables from 24,000 households.





The trials are intended to evaluate three different methods for collecting a range of dry recyclable materials consisting of newspapers and magazines, metal cans, glass bottles and containers,



plastic bottles and cardboard.





The collection methods to be used are:-

- i) Purpose made recycling boxes
- ii) Clearly defined and labelled recycling bags
- iii) Used supermarket carrier bags

In the four weeks prior to the commencement of the collection of these materials a vigorous marketing / publicity campaign will be undertaken in the target areas that will be intended to maximise the participation rates. The scheme will be expanded from the initial 24,000 households in year 1 to 60,000 in year 2 and 100,000 (all households in the County Borough) in year 3 with this level of service continuing after year 3.



Initially all material collected will be sorted at the existing facility at Coedcae Lane but activities after this time will require the building of, or access to, a purpose built materials recycling facility (MRF).

The methods of collection in years 2 & 3 will be dependent on the experiences gained in year 1.

#### 1.2 Potential

Within the municipal wastestream the amount of potential mixed dry recyclables has been identified. A mid range estimated figure of 28,000 tonnes (excluding plastic film) has been used for calculations (which is based on research data from Cardiff University amongst others). The success of this project and how much of this material can be diverted from landfill is dependent on participation by residents.











Previous experience from similar schemes carried out in other local authority areas has shown that the participation by residents will be in the order of 25%.

The Authority will aim to increase this rate to 45% within five years of the commencement of the scheme, and even higher beyond that. This would yield the following tonnages of mixed dry recyclables: -

#### **Dry recyclables**

Table 1

Year	Households participating	% participation	Tonnage collected
2002	24,000 @	25	1,680
2003	24,000 @ & 36,000 @	35 25	4,872
2004	24,000 @ & 36,000 @ & 40,000 @	45 35 25	9,352
2005	60,000 @ & 40,000 @	45 35	11,480
2006	100,000 @	45	12,600

The ultimate aim of the Authority, however, is to achieve and maintain as high a participation rate as possible which will be required if the Authority is to comply with current recycling legislative targets. An education and waste reduction policy, as detailed later in this report, will form a key component in achieving maximum recycling and 'diversion from landfill' targets.







In the medium-term it is intended that part or all of the collection of recyclables be combined with the normal refuse collection service. This has the potential to greatly reduce the cost of providing the service and will be borne in mind when the time comes to replace existing vehicles.





2. Action 2

The Council will introduce a green waste and putrescible collection scheme throughout Rhondda Cynon Taf.



The term 'green waste' generally relates to garden waste including grass cuttings, tree prunings, hedge clippings, weeds and flowers. In this context the term 'putrescibles' relates to non

cooked kitchen waste, mainly fruit and vegetable waste and peelings. Rhondda Cynon Taf has, for the past two years, operated a large-scale trial for collection and processing of kitchen and garden waste to produce compost and mulch. The existing scheme covers some 6,000 households with a participation rate of 25%.

The scheme will operate simultaneously with the collection of dry mixed recyclables detailed in Action point 1 and, therefore, the number of properties being offered the service and the areas of operation will be the same.

#### 2.1 Potential

Within the municipal waste stream the amount of potential green/putrescible waste will vary throughout the year. A mid range estimated figure of 18,000 tonnes has been used for calculations. The success of this project and the amount of material diverted from landfill, as with the mixed dry recyclable collection, will be ultimately dependent on participation by residents.

A participation rate of 25% to 45%, as discussed previously, would yield the following tonnages of green/putrescible material: -









#### **Green/putrescible material**

Table 2

Year	Households participating	% participation	Tonnage collected
2002	24,000 @	25	1,080
2003	24,000 @ & 36,000 @	35 25	3,132
2004	24,000 @ & 36,000 @ & 40,000 @	45 35 25	6,012
2005	60,000 @ & 40,000 @	45 35	7,380
2006	100,000 @	45	8,100

#### 3. Action 3

The Council will develop home, community and in-house composting schemes.

#### 3.1 Home composting

Home composting is the term used for composting kitchen and garden waste produced by an individual household within the boundary of that property. Home composting in its simplest form consists of a heap or mound of material at the bottom of a garden. A more sophisticated approach is to provide a purpose made composter to residents to contain the composted material and speed up the process.

#### 3.1.1 Proposals

The Council will supply home composting equipment at a discounted price to residents. Experience elsewhere

suggests that if residents are to be committed in their participation they should be asked to contribute to the cost of the containers.

The Council will back-up this subsidised purchasing scheme by providing a detailed information pack and technical assistance via a



telephone hot-line.
The Waste Education Section of the Council will regularly call on participating residents to provide encouragement, to assess the success of the

2001/2002



19



scheme and to obtain feedback to improve the scheme. Every effort will be made to encourage participation from other residents.

The Council realises that not all properties within the County Borough lend themselves to home composting, there are for example several estates consisting entirely of flats with no gardens. In the first instance the Council will purchase 2,000 home composting units a year for the next five years and will assess future demand at this time.

#### 3.1.2 Potential

At present regulations do not allow waste composted by the householders to be included in the tonnage of waste recycled by the Authority. The UK Government is reviewing the situation and is currently canvassing opinion on how this waste can be estimated and included. The resulting reduction in waste collected, however, will have a direct effect on the percentage of waste recycled by the Authority. In addition, the reduced tonnages of waste being collected by the Authority both for recycling and disposal will result in cost savings.

#### 3.2 Community composting

Community composting in this context refers to larger scale composting carried out by community groups or allotment associations.

#### 3.2.1 Proposals

The council will assist, encourage and promote the collection, processing and end use of compostable waste for composting in the community. This will be achieved by providing technical and practical support to encourage organisations such as allotment societies to develop composting facilities on their site. The material generated could then be used by them and reduce the dependency on bought-in soil conditioners.

#### 3.3 In-house composting

In-house composting refers to large scale composting, by the Council, of waste collected via kerbside schemes or through civic amenity facilities.











#### 3.3.1 Proposals

The composting of waste is subject to the Waste Management Licensing Regulations. There are, however, exemptions under these regulations to allow the composting of up to 700 tonnes of waste (1,000 cubic metres) without the need for a waste management licence. Within this exemption framework there are restrictions on the use of the compost product.

It has been estimated that 15 active sites will be required to handle the anticipated tonnages of waste if sites continue to operate under the exemption system. If other activities or increased activity levels are carried out at these sites planning permission may be required.

Composting targets can be achieved by: -

- i) The Authority running its own sites.
- ii) The Authority forming links with community groups and the farming community who will compost waste on its behalf.



iii) The Authority sending waste to private companies to be composted.

The first of these sites will be required from March 2002. If planning permission is necessary applications will need to be submitted some three months prior to this date.

The initial sites identified as being suitable for this use are:-

- i) The former colliery site in Hopkinstown.
- ii) The Bryn Pica waste disposal site.
- iii) The former nursery site in Cwmdare.

Other sites will also be required but these have yet to be identified.

Site investigations have commenced at these sites and applications, where appropriate, will be made to the Environment Agency and the Development Control Section of this Authority.

In order to maximise the potential for composting of waste work has commenced on identifying additional potential composting site and markets for the product produced. This work will probably need to be repeated at regular intervals as existing sites and markets diminish.





#### 4. Action 4

The Council will maximise the use of new and existing "bring sites", following consultation to establish the most appropriate locations.

Bring sites refer to recycling containers in prominent locations such as supermarket car parks.

Members of the public are encouraged to bring a variety of recyclable materials to these sites and deposit them in the appropriate receptacle.

Other similar facilities include civic amenity sites although these sites also offer facilities for general household waste.

The Authority currently operates :-

- i) 5 civic amenity sites (4 in the Rhondda area and 1in the Cynon Valley area).
- ii) 37 bring sites located throughout the County Borough.

Experience gained by other authorities has shown that these sites play a vital role in the quantity of waste that is recycled. It should be noted however that it is important to discourage the use of these sites as a dumping ground for general rubbish and to maximise their use as recycling centres.



#### 4.1 Proposals

In the past civic amenity sites have simply been waste disposal points but this is already changing. In future, civic amenity sites will provide a range of recycling containers for the recovery of material with reduced facilities for mixed waste. To reflect this change civic amenity sites will be referred to as community recycling centres with bring sites referred to as community.

The performance indicator "the percentage of population served by a recycling point within one kilometre of their home" was calculated at 53% for 2000/2001. It is the Authorities aim to increases this figure to 90%.



This will be achieved by implementing the following actions: -

i) The provision of up to 5 new community recycling centres.









- ii) Improvements to 2 of the existing community recycling centres.
- iii) Improvements to 4 of the community recycling points.
- iv) The provision of up to 35 new community recycling points.
- v) Improved sign-posting and advertising of sites

# 4.2 The provision of new community recycling centres

The proposed locations (subject to funding) for these new sites are: -

- i) Pontyclun.
- ii) Pontypridd.
- iii) Treforest\*.
- iv) Mountain Ash\*.
- v) Aberdare\*. (locations to be confirmed)

The sites will be constructed to a high standard with community safety to the forefront so as to ensure that they are both environmentally and user friendly. Adequate site security and CCTV coverage will be provided so as to monitor the sites 24hrs.per day.

Sites will be phased-in over a three year period, with one new facility in both the Taff Ely and Cynon Valley areas being developed in years 1 and 2.

# 4.3 Improvements to existing community recycling centres

The facilities at Dinas and Treorchy are poorly designed and located and do not easily lend themselves to conversion into community recycling centres. In order to maximise the potential of these sites it is suggested that they be improved or moved a short distance to new locations where well-designed facilities can be developed.

# 4.4 Improvements to existing community recycling points

The 5 most prominent recycling points operated by the Division will be improved and upgraded to increase the profile of recycling in general.

The proposed sites are :-

- i) Tesco, Upper Boat.
- ii) Tesco, Talbot Green.
- iii) Pioneer, Porth.
- iv) Asda, Aberdare.
- v) Sardis Road, Pontypridd





The improvement works will include the purchase of new modular recycling banks, landscaping of the immediate vicinity and sign-posting of the site.

The old style recycling banks removed from these sites will be re-sited at new locations thus increasing the overall number of facilities available.

It is hoped that the development of these sites will be carried out over a two year period with a proportion of the costs offset by sponsorship arrangements. Local companies would be invited to advertise their services at these prominent locations.

# 4.5 The provision of new community recycling points.

The current recycling points operated by the Authority consist of separate can and bottle banks and in some cases paper banks and textile banks.

It has been estimated that to achieve 90% coverage of the County Borough a total of 35 new recycling points will be required. Areas not presently covered have been identified but actual sites within these areas will be proposed following consultation with local members.

In order to increase the number of these sites a rolling programme has already commenced. Under this programme the majority of the can and bottle banks will be converted into dual units collecting both bottles and cans in a single split container.

By adopting this method of operation the use of current equipment will be maximised and there will be only a small increase in revenue costs to service these sites.

Paper banks are provided by an independent recycling company and it is reluctant to increase the number of banks due to continuing arson attacks. These attacks have resulted in the supplier of the units withdrawing the service from many areas.

Investigations will continue,

however, in an attempt to locate

suitable sites.













#### Improved sign-posting and advertising of sites

None of the current sites operated by the Authority are signposted on the highway. A programme to erect signposts in the vicinity of all sites will be organised.

In addition all sites will be improved by including:-

- i) Improved signage and information at the sites.
- ii) Receptacles for residents to recycle any bags and boxes used to transport material to the sites.



#### **5. Action 5**

The Council will include the following activities in its comprehensive strategy for dealing with waste.

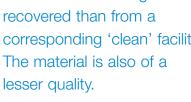
#### 5.1 A clean materials recycling facility within the **County Borough**

A materials recycling facility (MRF) is generally a factory unit containing equipment for sorting mixed recyclable material. These units range from low-tech facilities with materials sorted by hand to highly sophisticated, highly mechanised operations with totally automated sorting.

Clean units are generally used to sort material collected through kerbside schemes whereas facilities that are described as "dirty MRF's" sift material from general mixed waste. The levels of contamination in a 'Dirty' facility generally result in less material being recovered than from a corresponding 'clean' facility. The material is also of a

The development of a clean MRF facility with some sorting equipment will be a key element of the kerbside recycling scheme that is currently being developed.





As an interim measure the Council's pilot facility at Coedcae Lane has been upgraded to take recyclable material from the current kerbside collection scheme. The mixed recyclables will be sorted mostly by hand although ferrous metals will be extracted by magnetic separation.



To cope with demand the facility now employs 29 full-time staff working on two shifts. With this current arrangement, the maximum throughput of the plant is 10,000 tonnes per annum.

The facility at Coedcae Lane will have the capacity to operate for 2 years based on the tonnages identified in section 1.2. At this point in time a larger facility will be required. The type of facility proposed will involve a mixture of mechanical and manual sorting and will include the following equipment:-

- i) Waste reception hopper.
- ii) Feed conveyor.
- iii) Magnetic separator (to remove ferrous metals).
- iv) Eddy current separator (to remove non-ferrous metals).
- v) Manual picking belt.
- vi) Storage hoppers
- vii) Shredding equipment (for green waste)
- viii) Screening plant (to remove large paper and cardboard items)
- ix) Compacter

Any facility developed would need to be central to the County Borough with good road links from all areas. A detailed survey of potential sites is being carried out to establish their suitability and determine approximate development costs.

Realistically, due to consultation and planning requirements, there will be a two year lead-in period before any new facility is operational. Therefore, any decision on the location of a new facility would have to be made in early 2002 so that the facility is operational before the Coedcae Lane site becomes overstretched.









# 5.2 A gasification unit if suitable and viable but without minimising reuse or recycling options

Gasification is heating of waste in a limited amount of air to prevent combustion but to promote the breakdown of waste into gas. The gas is then used to generate electricity and this electricity is supplied to the National Grid.

The gasification of waste is a relatively new development within the UK and as such little information on existing commercial-scale plants is available.

The capital costs of establishing a gasification plant, possibly in excess of £10M, will make it difficult for the Authority to develop its own facility without an external partnership or grant support.

Anticipated costs for dealing with waste by gasification will initially be higher that traditional disposal to landfill. However, commentators predict a steep rise in landfill tax rates even above the current annual increases. This will result in landfill becoming the more costly option as gasification will not be subject to this disposal tax.

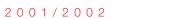


Therefore, during the next two years, whilst the Authority maximises its recycling of municipal waste it will also carry out a research programme to assess gasification of residual waste. The Council will investigate, in depth, the potential for gasification, particularly its suitability for linking to existing and future options for dealing with waste, with a view to developing a facility in the medium term.

# 5.3 The provision for transporting waste out of the County Borough when necessary

There are several waste management sites outside the County Borough that could be utilised to deal with waste generated within Rhondda Cynon Taf. The Council will, however, avoid this course of action unless it proves absolutely necessary.







The provision of one or more transfer station within the County Borough would be an essential element if this action point were invoked. Transfer facilities would be necessary to maximise loads and reduce transport costs.

The provision of transfer facilities, as an integral part of the MRF, would make sense as this creates the opportunity to maximise the payload of vehicles taking saleable, recycled material from the site to locations outside the County Borough. It would also minimise the number of vehicles travelling around the County Borough. This will be particularly important should one of the two landfill sites close.

In this instance collection vehicles would only need to deposit waste at one site and the operation of such a site would allow greater flexibility in the choice of ultimate disposal destination. This disposal facility could be outside the County Borough.

It would be financially and operationally beneficial to combine this facility with both the MRF and the green waste bulking/shredding operation. Therefore, transfer capacity for unprocessed municipal waste will be included in the

proposals for the MRF facility detailed in section 5.1 above.

The entire facility would be housed in a suitable building to limit visual impact.



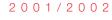
The operation of this central facility would reduce the operational mileage of refuse collection vehicles and in turn this will partially offset the additional transportation costs incurred.

# 5.4 A phased reduction of landfill as quickly as possible

Increases in recycling activity will have an immediate impact on waste to landfill. If the suggested recycling participation rates in Sections 1.2 and 2.1 can be achieved this impact will be significant. The transfer station/MRF complex will not only reduce waste to landfill but will offer flexibility to transfer waste to alternative facilities.











Other waste management options such as gasification will have less impact short term but have the potential to reduce the requirement for landfill by major amounts in the future. The possible options described in Section 9 could also contribute to a major reduction in need for Landfill capacity.

Detailed work is being undertaken, in consultation with the Landfill company, to understand precisely the implications of these reductions. Clearly it is hoped that it will be possible to close down landfill capacity well in advance of scheduled closure dates.

#### 6. Action 6

The Council will maximise the use of reuse initiatives, working in partnership where appropriate to provide appropriate support to organisations with expertise and experience in this area.



The Council will expand and increase its involvement with community groups via the existing Community Recycling Partnership wherever possible. The membership of this partnership is available to any suitable community group provided they are able to satisfy the criteria set out in the Memorandum of Understanding. The Council will encourage any such group to enter into partnership working.

Within the existing partnership there are many opportunities to carry out joint reuse, recycling and composting initiatives. Furniture reuse, can and plastic recycling and on-farm composting are areas that immediately spring to mind. As well as hands-on initiatives, partners are also able to contribute other skills and experience such as publicity and promotional work, working in and with the community, training and work experience.

The Council, in conjunction with existing and future partners, will seek to develop new initiatives. These will include a scrap store both as a physical storage and distribution facility but also as a web site with details of materials available and materials required.

The Council will also seek to work with local scrapyards to arrange an amnesty period for the surrender of unwanted vehicles at no charge. This will increase the amounts of scrap metal recovered and reused whilst reducing the burden of dealing with abandoned vehicles.

#### 6.1 The Waste Resources and Action Programme



WRAP (Waste Resources and Action Programme) is the joint DETR/DTI programme to promote sustainable waste management. An independent not-for-profit organisation has been set up to deliver this programme.

The aim of WRAP is to secure a significant increase in recycling of wastes and an expansion in markets for secondary materials. It will also seek to reduce the costs of sustainable waste management by promoting the development of new technologies and by dealing with market failure in the recycling and reprocessing industries. It will have a key role in research and information management with the aim of promoting innovation in both reprocessing and manufacturing.

The programme will be jointly funded by the DETR and the DTI although WRAP will be expected to seek funding from the private sector and in particular through the landfill tax credit scheme.

#### **Action 7**

The Council will provide links between economic regeneration strategies and the waste strategy. This will ensure the encouragement of new businesses that will contribute towards employment generation and a reduction in waste to landfill.

The Authorities greatly increased activities in recycling will result in large tonnages of material for further processing. To maximise the use of this material by the Authority a desktop study will be commissioned identify existing and potential markets for recyclables.









The long-term aim of this study will be to encourage into the area appropriate business that are able to use the recyclable elements as raw material for their processes.

This could be achieved, for example, by setting up:-

- i) An ecopark, in partnership with other authorities, businesses and community groups. This park would be a large-scale development incorporating a range of related environmental initiatives and recycling schemes. This venture would accommodate both reasonably sized recycling companies/ materials reprocessors and small community businesses.
- for companies to exchange their "waste" products which could be achieved by the setting up of a suitable Web Site.

iii) An expansion of the furniture reuse scheme currently operating within the County Borough

Early links will be established with the Economic and Community Regeneration Section of the Council to progress this matter.



#### **Action 8**

The Council will explore ways in which its purchasing policies and processes can contribute towards overall waste minimisation. It will consider the implementation of a sustainable purchasing policy within the Council and ways in which this might influence other organisations within the County Borough.

It is important that the Authority sets an example to all householders and businesses within the County Borough and as such its long-term aim should be to achieve "zero waste" from its activities.

#### 8.1 Proposals

In order to achieve this aim the procurement division of the Authority must ensure that, wherever possible, recycled materials are purchased. Such materials would range from office supplies to construction materials.

In addition the Authority must establish a policy requiring that, wherever possible, waste produced from its activities is recycled. Materials covered by this policy will include:-

- i) Office paper.
- ii) Toner cartridges.

- iii) Green waste.
- iv) Kitchen waste.
- v) Cardboard.
- vi) Paper hand towels.
- vii) Hardcore.
- viii) Road planings.

Introduction of this policy would incur minimal cost and it is possible that savings could be made where waste is recycled.

In order to achieve this aim a project team will be set up within Environmental Services, who in liaison with officers from the Procurement Division will prepare a joint report on this issue for consideration by the Cabinet of the Authority.

This initiative will form part of the Authority's Sustainable Development Action Plan.









#### **Action 9**

The Council will review contracts and waste disposal agreements between the Council and other parties with a view to reducing the level of waste transported into the County Borough.

The Council will seek to reduce its requirements for landfill within the County Borough by:-

- i) Increasing recycling to the maximum attainable level.
- ii) Investigating other disposal options such as gasification.
- iii) Reducing the volume of waste transported into the County Borough for disposal.

  The Council's LAWDAC (Local Authority Waste



Disposal Company) currently operates two landfill sites within the County Borough. One is the Nantygwyddon site at Gelli and the other the Bryn Pica site at Llwydcoed.

If the tonnages detailed in action points 1 and 2 are achieved then the Authority will reduce its dependency on landfill by 21% within 5 years which will reduce the tonnage of waste disposed of by the LAWDAC's by approximately 21,000 tonnes. Dependency on landfill by the Authority will be further reduced in due course if gasification proves to be a viable and desirable alternative

The LAWDAC currently operates contracts with third parties covering large tonnages of waste. These are being discussed and reviewed in detail with the LAWDAC with a view to reducing or redirecting as much of this material as possible. There are options for stopping the import of in excess of 50,000 tonnes of material by the year 2003 and the cost implications of such actions are being calculated. If such a step could be taken the opportunity to reduce landfill capacity would be greatly enhanced.



#### **Action 10**

The Council will consider further analysis of the following waste management options before finalising the Action Plan:

- i) Refuse derived fuel production
- ii) Anaerobic digestion facilities
- iii) Residual waste sorting facilities

# 10.1 Refuse Derived Fuel Production



The Authority has recently been contacted by a large local company that is proposing to construct a plant to combine fine coal with dried, screened municipal waste. This material will be turned into fuel pellets.

The company in question are currently preparing a business plan for this venture and this plan will be submitted to the Authority in the near future. As with all such proposals the Authority will make an initial evaluation based on:

- ii) Environmental impact.
- iii) Desirability
- i) Best Value.

A provisional decision on whether to support this venture is anticipated within the next six months.

# 10.2 Anaerobic Digestion Facilities

A consortium of local
Authorities the South East
Wales area is currently
investigation a regional
approach to the provision of
anaerobic digestion facilities.
Rhondda Cynon Taf is now
represented on this grouping
and will be given the option to
participate if such facilities are
constructed in the region.

# 10.3 Residual Waste Sorting Facilities

The Materials Recycling
Facility (MRF) proposed in
section 5.1 will include for a
basic sorting facility for mixed
municipal waste. This
operation will run alongside
the clean separation
activity and will consist
of:-

- i) Magnetic separation equipment to remove ferrous metals.
- ii) Screening plant to remove large items of paper and cardboard. This material will be added to the green waste collected for composting. The operation of this facility will be reviewed when the maximum amount of recyclable material is removed from the wastestream.









#### **Action 11**

The Council will develop an education and awareness raising strategy targeting key groups of the community including the following:-

- i) Householders.
- ii) Local businesses.
- iii) Schools.
- iv) Local Authority staff.
- v) Local Authority Councillors.

In order to achieve the maximum level of recycling and waste minimisation that is practicably possible a marked change in attitude towards waste will be required by the public. This will require a concerted educational campaign aimed at householders, schools, businesses, industry etc.

A key element of this campaign will centre on the new recycling service.
Residents that are being offered this new service must be supported but must also have the opportunity to comment on the service.
Effective use of this feedback will enable the scheme to be improved and participation increased.

The Authority is currently holding discussions with Cardiff University regarding a major programme of marketing and research to assess public opinion and promote increased participation.



Education within schools is of major importance but the message will be targeted at age groups and areas of the community. Discussions are already underway with senior education staff to integrate the recycling and waste minimisation message into the school curriculum. In addition a waste reduction campaign will be launched to deal with specific elements of the waste stream. The removal of certain items will aid the recovery of other elements of the waste stream. Materials that will





be targeted in this way include nappies, wet kitchen waste and cooked food.



The Council have or will also introduce the following initiatives that will not only deter anti-social behaviour but also inform and educate the public to respect waste:-

i) The Wastebusters initiative aimed at the removal and enforcement of flytipping, flyposting and graffiti is already underway. This hotline and rapid response initiative is already reducing the impact of flytipping, flyposting and graffiti within the County Borough.



ii) Litter wardens are shortly to be introduced and they will perform similar tasks to reduce the occurrence and impact of littering in the streets.



iii) The possible introduction of an amnesty period for owners of unwanted vehicles will also be considered so that these vehicles might be disposed of free of charge. This would reduce the number of incidents of abandoned vehicles and reduce the associated environmental impact.









The Council will consult through engagement. It will utilise qualitative feedback to inform all these actions and examine the issues to maximise participation. The Council will utilise the following suggestions on consultation and engagement:-

- i) The consultation process should use focus groups for qualitative feedback, including existing groups where appropriate.
- ii) The consultation process should include the use of local newspapers for awareness raising, including the Council's own newsletter, Rapidly Changing Times.
- iii) The consultation process should focus on the scale of the problem at hand and the process required to deal with the problem.
- iv) The consultation process must involve all key stakeholder groups including:-
- a) Funders and potential funders
- b) Neighbouring local authorities
- c) Waste management companies

The Community Waste
Forum is just a first step in a
comprehensive and on-going
consultation process. This
Forum encouraged opinions
from representatives of all
interested parties and used
this information to compile
both the recommended
action points and the Action
Plan.

The Council has also extended the consultation process by setting up an independent focus group made up of a cross section of residents of Rhondda Cynon Taf. This group has discussed and commented on the proposals identified by the Forum from a resident perspective.



To compliment this intensive resident consultation the Authority has designed and prepared a consultation newsletter. This document plus questionnaire has been distributed to 5,000 households selected at random from the electoral roll. Responses to the questionnaire have been logged and assessed and comments have been correlated and quantified. The information and questionnaire has also been made available on the Council's website for electronic responses.

The information contained within the consultation newsletter has been repeated in the Rapidly Changing Times Council newspaper. This publication has been distributed to all households within the County Borough. Residents were again invited to respond to the waste management proposals. Several of the practical proposals outlined in the action points will require support for residents in the form of help and advice. The Council will set up suitable hot-line telephone numbers but will also provide staff to carry out these functions via visits to individual householders. At the same time these officers will record feedback from residents that

will be introduced into the consultation process.

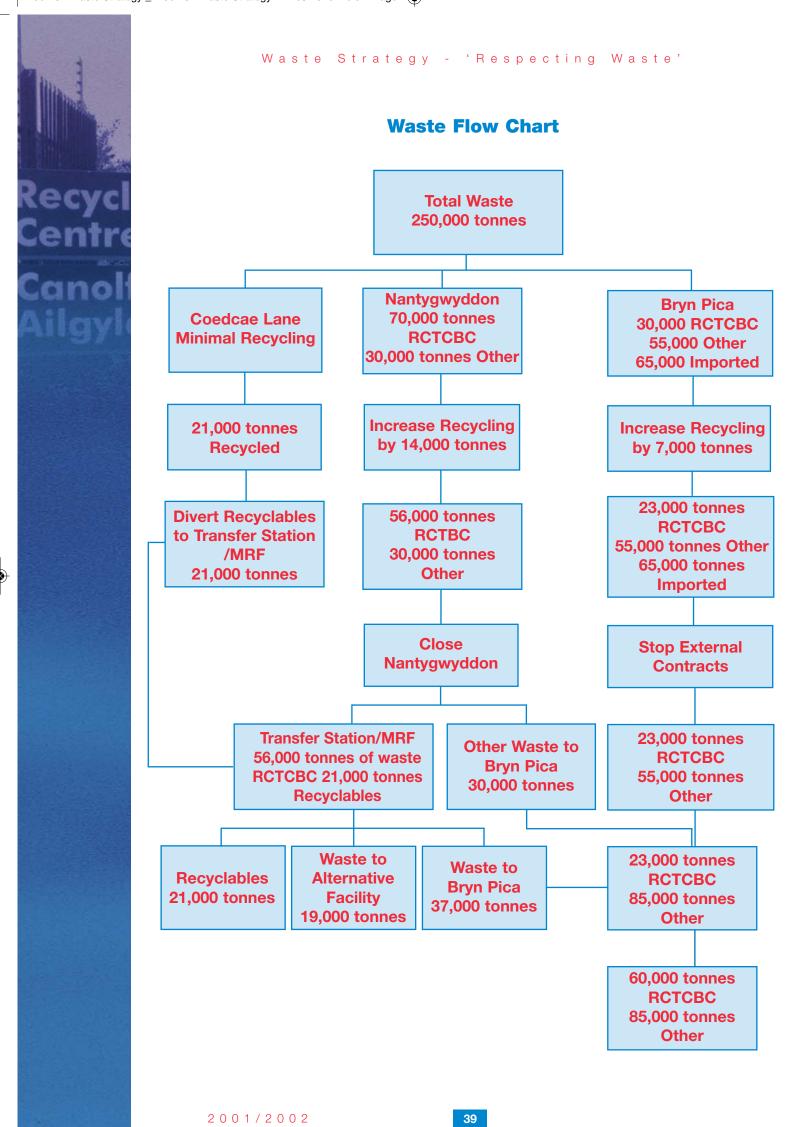
It is hoped that The
Community Waste Forum will
continue to operate
throughout and beyond this
consultation period to assess
the feedback from various
groups. The Forum will feed
in recommendations on the
proposed actions and will
suggest fine-tuning of the
actions accordingly.

This Action Plan is a "live" document that will be continually updated in to the future as and when required. The Forum will hopefully contribute to this ongoing process as the key consultation vehicle, and a monitor of progress.

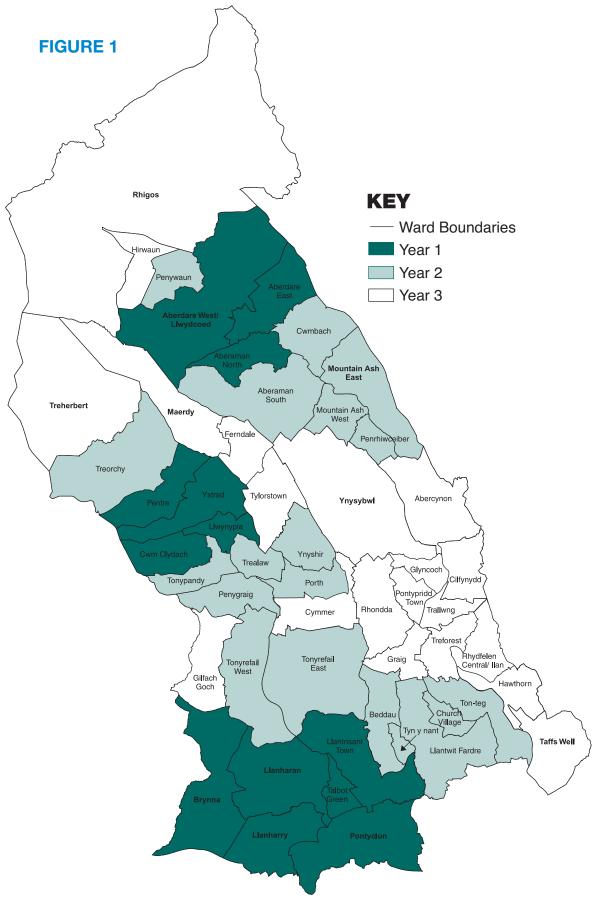
To this end a number of discrete targets are being developed covering all aspects of the Action Plan, whose achievement (or not) will provide a clear indication of the effectiveness of the strategy.







# Rhondda Cynon Taf Kerbside Recycling Roll-out Programme



Reproduced from the Ordnance Survey Mapping with the permission of Her Majesty's Stationary Office (c) Crown Copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings. LA09017L

\_

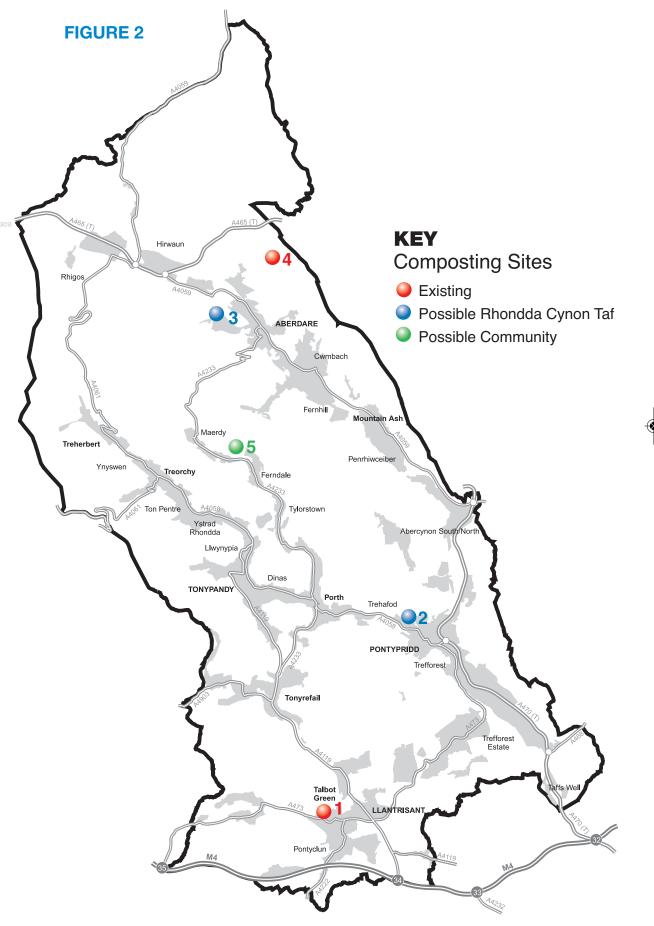








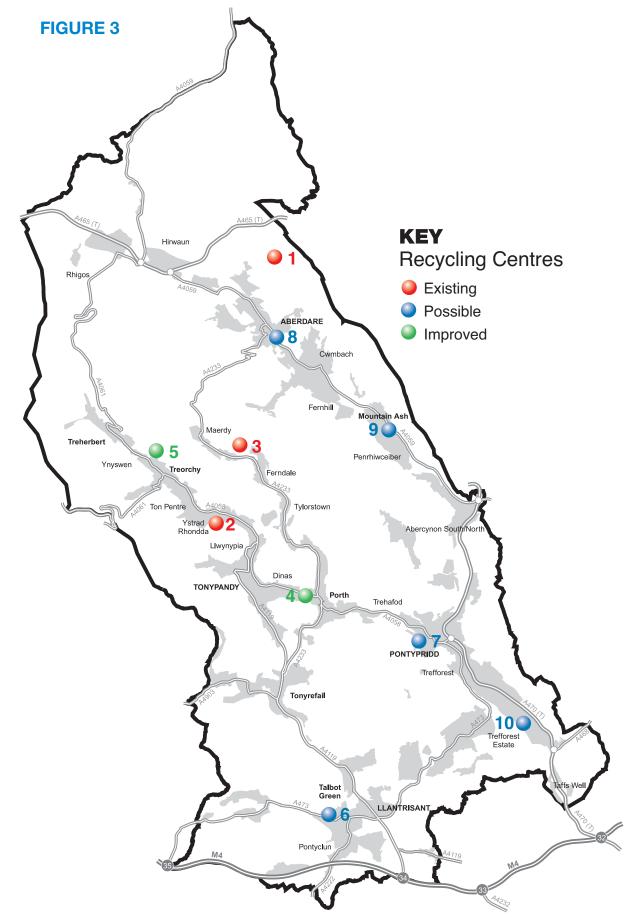
## **Rhondda Cynon Taf Composting Sites**



Reproduced from the Ordnance Survey Mapping with the permission of Her Majesty's Stationary Office (c) Crown Copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings. LA09017L



## **Rhondda Cynon Taf Community Recycling Centres**

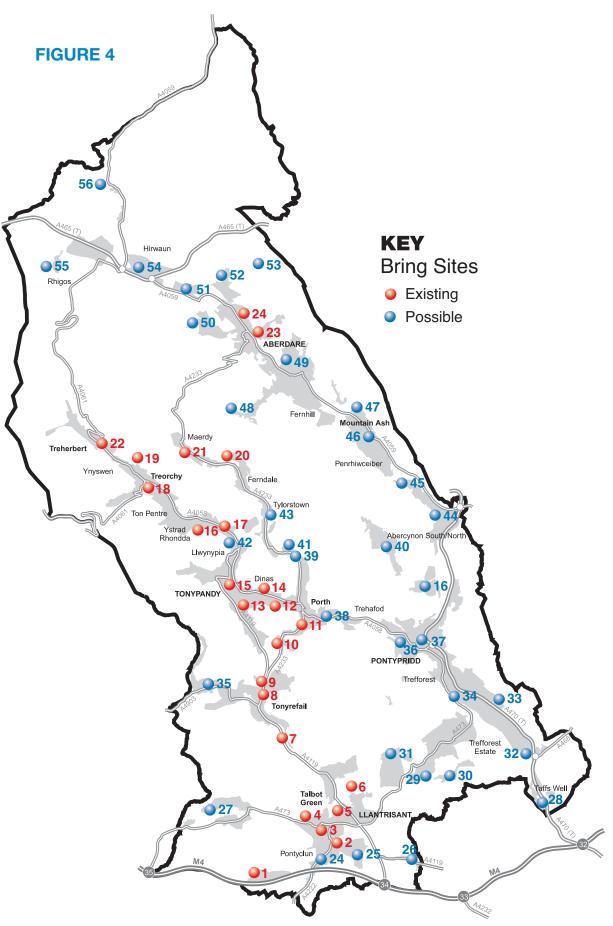


Reproduced from the Ordnance Survey Mapping with the permission of Her Majesty's Stationary Office (c) Crown Copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings. LA09017L





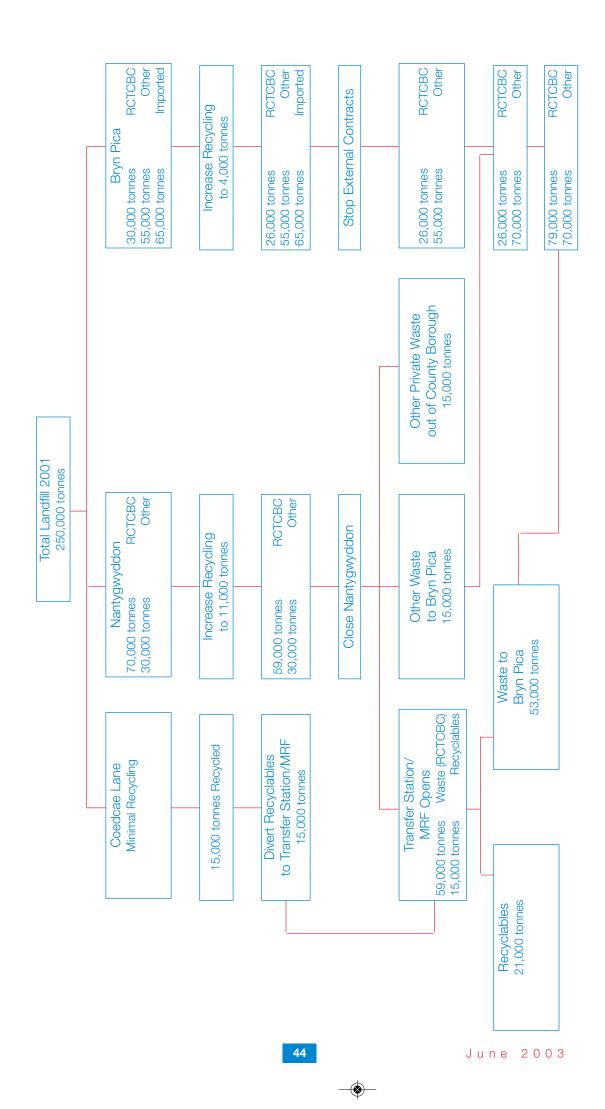
## **Rhondda Cynon Taf Community Recycling Points**



Reproduced from the Ordnance Survey Mapping with the permission of Her Majesty's Stationary Office (c) Crown Copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings. LA09017L



Waste Strategy - 'Respecting Waste'









### Notes

2001/2002



50