



Too Good to Waste



Introduction: Too Good to Waste

Byker and Newcastle Waste Group (BAN Waste) was established in early 2000 on the suggestion, and with the support, of Newcastle-upon-Tyne City Council. Its purpose was to address a range of issues around Newcastle Council's plan to build a new incinerator in Byker.

We believe that it is now unlikely that Newcastle Council will want to build the proposed new incinerator. However, this leaves the question of what to do instead. This report offers a strategy and method to answer that question and to greatly improve Newcastle.

The majority of the community members of BAN Waste started off wanting to **Oppose a 'Bad'**, a new incinerator in Byker. Through experience, BAN Waste members now want to **Promote a 'Good'**, a resource recovery strategy for Newcastle.

Two fundamental changes are needed.

- Society must change from **waste disposal to resource recovery**. Resource recovery treats what is called waste as valuable resources. These should not be thrown away but re-used, recycled and composted.
- Those handling the resources, the council and industry must recognise that the key to success is people. This means a **shift from a priority on technology of disposal to people-centred recovery**.

The title of the report 'Too Good To Waste' refers to three points.

- It borrows the phrase from Nova Scotia, Canada, which moved from virtually no recycling to 50% recycling in a few years. The policy was launched with strong public involvement and support. As well as improving the environment, it created 3,000 additional jobs.
- Society today throws away tonnes of valuable resources. Most of the materials in the bin that are described as waste took energy, effort and raw materials to produce, yet after a short life they are thrown away. This destroys resources, creates pollution and harms the environment for ourselves and future generations. Society needs to have a policy of Resource Recovery. These resources and the environment are 'Too Good to Waste'.
- Crucial to the change from waste disposal to resource recovery is for the waste industry to recognise the importance of people. The people of Newcastle have a wealth of talent and, given the opportunities, can make the city a centre of resource recovery. Their knowledge, skill and energy are 'Too Good to Waste'.

Newcastle and Britain cannot continue to throw away resources. It is wasteful of money and human effort. Newcastle and the region spend £millions on waste disposal, which provides few jobs, and further £millions on attracting jobs. Resource Recovery would mean that the money presently spent on waste disposal would both improve the environment and provide jobs; a strategy of combined benefits.

It is morally indefensible to deprive future generations of resources and instead leave them pollution. As the children of Farne Primary School said at a Select Committee hearing

"Look after our world, it's all we've got".

BAN Waste's strategy, as outlined in this report, is based on resource recovery with benefits to the environment, health and employment. There are also benefits of increased community involvement, a strengthening of democracy and civic pride. Our aim is that Newcastle should be a world leader.



Wasteful or Resourceful

There are many reasons why Newcastle needs to change the way it handles waste.

- To protect the environment and ensure resources and a clean planet for future generations
- European and British legislation require a change
- Future legislation will increase the need to move away from waste disposal
- The public strongly supports a change

Protecting the Environment

We live in a throwaway society; resources in the world today flow one way from raw materials to waste. All these goods take energy, labour, raw materials and money to produce, yet almost all of it ends up as waste. This destroys resources, creates pollution and is robbing the future. Our children and grandchildren will have fewer resources and more pollution because of our actions.

There is enormous scope to reduce waste. In the natural world there is really no such thing as waste, there is a constant cycle of re-use. One plant or animal's waste is another plant or animal's food. Society needs to move from a throwaway outlook, of a one-way flow from raw material to rubbish, to a circle of recycling and re-using. **Society needs to close the loop.**

Human life depends on plants; yet farming today is damaging the soil upon which plants depend. There is an alternative to declining soil quality and mounting piles of waste. Much of what we throw away could be composted and used to improve the quality of soil. This is a very clear and simple example of closing the loop.

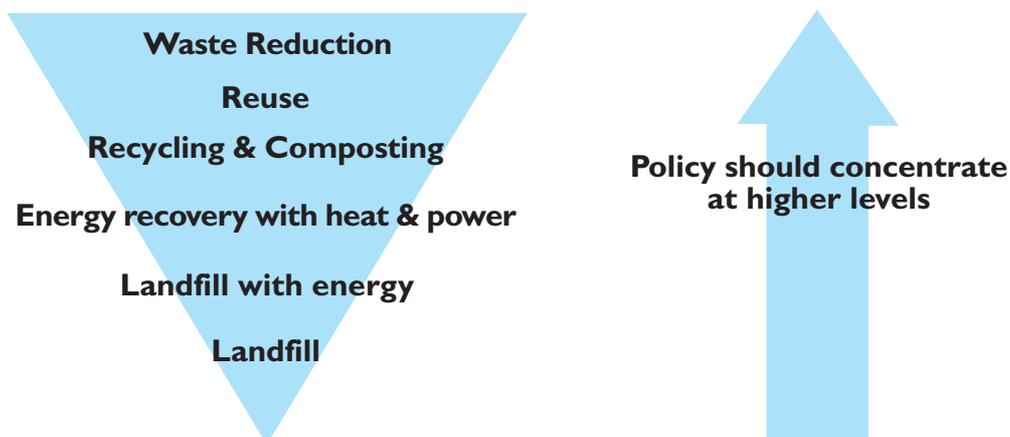
Every product and material we throw away into a landfill site or an incinerator is wasting energy and adding to climate change. Carbon dioxide from burning and methane gas from landfill is changing the world's climate.

Legislation

It is important that Newcastle's waste strategy for the next 10-20 years is based both on the existing legislation and the likely future policies. The core principle of policy is to change from waste disposal to resource recovery.

A key objective of government policy is to move treatment up the Waste Hierarchy. This gives priority to first of all reducing the production of waste, then in order of preference re-use of objects, then recycle and compost waste, then recovery of energy from waste and finally, as a last resort, landfill.

Waste Hierarchy



Present Targets

- The government has set targets that councils should increase recycling and composting to 33% by 2015.
- It has stated that the amount of biodegradable waste (organic matter, paper and card) that goes to landfill in 2020 should be reduced to only 35% of the amount sent to landfill in 1995.
- It has stated that 67% of waste should be treated for recovery – recycling, composting or energy from waste – by 2015.

There is a question mark over the long-term importance of the recovery target.

It is likely that the crucial targets for local authorities will be for recycling and composting and diversion of biodegradables from landfill.

Failure to achieve the recycling and landfill targets could result in Newcastle Council facing financial penalties.

Future Legislation

It is likely that in the next few years there will be further legislation on handling waste including

- bans on the landfilling of recyclable products
- bans on incinerating recyclable products
- tax and further controls on incineration
- higher recycling and composting targets
- requirement to collect organic waste separately and produce clean compost
- requirement to collect separately household hazardous waste

In May 2003 the European Commission ruled that “energy recovery from dedicated waste incinerators can no longer be counted towards waste recovery targets under the EU packaging directive”.

This raises questions about the long-term role of incineration as part of a waste strategy.

It is likely that Britain will move towards a target of 45% recycling and composting by 2015. It is clear that Newcastle will have to reduce waste, treat the waste produced as a resource by high levels of recycling and composting, and minimise the negative impacts on health and the environment.

At present, Newcastle recycles less than 10% of waste. As Newcastle Council considers its strategy for the next 20-25 years it has a choice.

Does it look to the future and aim to be a leader? Or does it aim only to meet the immediate short-term targets and leave Newcastle in 5-10 years with the problem of changing an inflexible strategy?

Newcastle Plans

There are plans to improve many areas of East Newcastle with developments in the Ouseburn valley and along the Quayside. The Byker estate has been recently proposed for Grade II listing. There are plans to have new housing in South Byker and proposals for significant new housing along Walker Riverside.

A new incinerator in Byker would harm all these developments.

It is extremely unlikely that a new incinerator in Byker would gain planning permission.

The suggested alternative of shipping the waste to Cleveland will still have all the negative impacts of incineration. There would be the additional damage and cost of sending 54,000 tonnes of waste to Cleveland every year, over 50 trucks a week making an 80 mile round journey.



Face the Future

BAN Waste's proposal puts the emphasis on people and resource recovery. While the strategy presently proposed by Newcastle Council has some points in common, it is fundamentally based on using technology to dispose of waste. It uses incineration, landfill of active waste and aims to make compost from mixed waste.

BAN Waste's Principles and Approach

BAN Waste has based its proposals on a number of key **aims**.

- High levels of Separation of Materials
- Exceed Government Targets
- Move the Handling of waste Up the Waste Hierarchy
- Look to the Future
- Minimise negative Health and Environmental impacts and inequality
- Make Newcastle a Leader in Resource Recovery
- Effective Expenditure to ensure Costs produce Maximum Benefits
- Realise Employment opportunities of resource recovery

It has based its proposals on certain **methods**.

- Concentrate Resources at the higher levels of the waste hierarchy
- Put the Priority on People, including involvement and education
- Using Technologies that are Flexible, Safe and Simple
- Systems that are Easy to Use

Collection

BAN Waste's proposals aim to keep materials separate, as much as possible, in order to reduce problems and maximise the opportunities for resource recovery. The key features are high quality and well supported household collections of:

- Weekly collection of recyclables, using electric vehicles
- Weekly collection of kitchen organic matter and fortnightly collection of garden matter
- Collection of household hazardous waste
- Fortnightly collection of the remaining mixed waste

Further recyclable materials will be collected from improved Civic Amenity sites, enhanced bring schemes, and the sorting of the bulky collections from households. Metals will be extracted from the remaining mixed waste. **Overall this would give a recycling level of 36%.**

Compost will be made from the organic matter collected from households, Civic Amenity sites and bulky collections. This will be done in enclosed vessels to remove problems of odour, pests, bio-aerosols and harmful chemicals. This high quality compost can be used by the Council and sold to the public.

Around 20% of the city's household waste would be composted.

The key differences in collecting waste are that **BAN Waste aims for high levels of collection for recycling from houses, including organic matter, and therefore has only 40-45% of mixed waste for treatment compared to the Council's proposed 70%.**

Treatment

The remainder of the waste will go for Mechanical and Biological Treatment (MBT) to:

- remove steel and aluminium for recycling
- reduce the weight of the material by 25-40%,
- capture the methane gas for use as a fuel, rather than it being produced in landfill where it is a health risk and escapes to the atmosphere adding to climate change
- ensure that the materials going to landfill are inert and do not produce leachate or harmful gases.

Comparison of Main Treatments

Increased Home Compost
Recycle and Reuse
Compost of Separate Organic Matter
Stabilisation by Composting of Mixed Waste
Incineration
Mechanical and Biological Treatment
Direct Landfill
Total



Location

As MBT plants are flexible and can be small scale, BAN Waste proposes the development of several small plants located in industrial areas rather than a single large one in Byker. This would be beneficial for the environment and reduce transport.

Public Involvement

There is overwhelming support for recycling and composting, with people willing to separate materials.

Crucial to the success of BAN Waste's strategy is a high level of community involvement, with public involvement in designing and operating the system; good promotion and information; a creative approach to public awareness and education and modest incentives. A well-motivated and trained workforce, working as 'Green Ambassadors', will further boost recycling.

BAN Waste has proposed a partnership supervisory board for resource recovery involving Council managers, councillors, the workforce, community groups, the recycling business and others.

Success

Cities all over the world are recycling and composting 50% or more. The people of Newcastle are as capable as any in the world of achieving these levels. What is needed is:

- Vision and determination from the Council and Senior Managers
- An enthusiastic workforce
- High public involvement

Costs

The direct costs of BAN Waste's strategy are similar to Newcastle Council's proposals. However the Council's proposals concentrate expenditure on technology, which may become obsolete due to new legislation, and has less flexibility. BAN Waste's strategy has wider benefits as it:

- concentrates finances and human effort on the higher levels of the waste hierarchy,
- concentrates finances and human effort on people rather than technology
- will produce more jobs
- is more flexible to deal with change
- is better for health and environment
- is in line with present and future British and EU policy

As BAN Waste's proposal is based on strong community involvement and is forward looking there are many more opportunities to access additional funding.

In the past costs and benefits only considered what was the cheapest way to dispose of waste. Many of the costs – of pollution, ill-health, neighbourhood blight and resource waste – never appeared on the balance sheet. Often the potential benefits such as employment, strengthening of social cohesion and improved environment were ignored.

There is growing pressure for the costs of pollution and ill-health to be carried by the operators of the system, including the possibility of court actions because of poor operating standards and ignoring warnings.

BAN Waste's approach is affordable, minimises the wider costs and maximises additional benefits.

Targets

BAN Waste's strategy would exceed all of the government's targets. This allows the Council flexibility and ensures if there is a shortfall, for whatever reason, the targets are still exceeded. BAN Waste's strategy will meet the likely new targets for higher levels of recycling and requirement to collect bio-waste and household hazardous waste.

Newcastle Council's proposals will meet the existing short-term targets. However they will not meet the existing longer-term targets, and likely future changes.

	BAN Waste %	Newcastle Council %
	(2)	0
	36	26
	20	4
	0	15
	0	40
	42	0
	0	15
	100	100



Benefits of Change

Environment & Health

The greatest benefit to the environment of BAN Waste's strategy would be the sharp reduction in the disposal of resources. All these resources took raw materials and energy to make and their production causes pollution. Recycling and composting reduces this environmental damage.

Recycling saves three to five times as much energy as an incinerator produces. Recycling is better for the environment than incineration or landfill.

BAN Waste's strategy is based on key health and environmental principles.

Precautionary Principle

The aim of any policy relating to health and environment is that prevention is better than cure. Sometimes prevention is the only option, as some ill-health cannot be cured and environmental damage cannot be repaired.

The Precautionary Principle recognises that it is better to act on strong evidence of ill-health or damage to the environment rather than wait for absolute proof. Waiting for proof can cause more damage.

There is a long and tragic history of warnings being ignored until a great deal of damage was done. The delay in acting on the warnings about asbestos, smoking and PCBs were clearly harmful to human health. This delay also damaged those responsible, as the huge costs against the asbestos and tobacco industry show.

Social Health

BAN Waste agrees with government policy that wider social issues have a major impact on health. Employment, conditions of housing and neighbourhood, a sense of well-being and ability to influence decisions all have an effect and should be included in considerations on a waste strategy.

Justice

The poor, the young and elderly often are more vulnerable to harmful health impacts than the average of the population. The disadvantaged also suffer from a poorer environmental quality with polluting activity such as incinerators more likely to be located nearby.

The waste strategy needs to tackle inequality by reducing as much as possible the negative health and environmental impacts and ensuring that the burden of these impacts does not fall on those already disadvantaged.

Hazard Reduction

Landfilling mixed waste and incineration are hazardous processes. The protection of the environment and human health relies on the absolute security of the safety controls and the consistent high standards of the operator. Yet, things do go wrong. In contrast, BAN Waste's approach is to use largely safe, benign techniques such as MBT, recycling and clean composting.

Preventing a problem is better than trying to control it.

Landfill

Newcastle Council's proposals would send incinerator ash and mixed waste to landfill. In landfill sites, this mix reacts to produce many harmful chemicals which pollute the air, soil and water. Such sites attract pests and vermin and release unpleasant odours.

The ash will contain heavy metals, dioxins and other harmful chemicals. Landfill sites account for 25% of all the UK's methane releases which can cause explosions and is a much more powerful contributor to global warming than carbon dioxide. There is growing evidence that mixed waste landfill sites harm health.

In contrast, BAN Waste's proposal, while using landfill, would only send treated materials that are virtually inert. MBT reduces the production of methane and leachate by over 90%. As the treatment is enclosed it deters pests and vermin, kills pathogens and reduces the release of odours.



Compost

The Council proposes to make compost from crushed mixed waste. There are serious doubts about whether it is possible to separate waste after it is mixed. There is a high risk that the end product would not be compost because of contaminating plastics, glass, paint, solvents, heavy metals and other chemicals.

BAN Waste proposes the separate collection of household organic matter. Composting this matter is a straight forward and safe operation which will produce clean compost that will improve soil quality and could be used by the Council on its parks and sold to the public.

Incineration

Incineration does not save energy; at best it reduces the amount of energy that is wasted. But in the process it destroys almost all the useful resources. It produces carbon dioxide, which contributes to climate change. It produces a cocktail of hundreds of chemicals, many of which are harmful to health and the environment. Incineration relies on expensive filters and controls to reduce the release of these harmful chemicals. If captured these chemicals are sent to landfill as fly ash.

Many of the chemicals produced, such as dioxins, do not occur in nature so the body has no protection. They can be particularly damaging to foetuses and young children who are still developing. Dioxins, volatile organic compounds and heavy metals can cause cancer; damage the reproductive and immune systems, disrupt hormones and damage the development of the brain.

Incinerators produce ultrafine particles. The human body has no natural barriers to prevent ultrafine particles entering the lungs, passing into the blood stream and through cell walls into organs, including the brain, and foetuses. These tiny particles are highly reactive, and even materials that as larger particles are harmless, at the size of ultrafines can be toxic. There is no legislation to control or monitor their release and the present filters are almost totally ineffective in capturing ultrafines.

Strategic Environmental Assessment and Health Impact Assessment

The Strategic Environmental Assessment and Health Impact Assessment report ignores the difference between sending treated and untreated waste to landfill and underplays the risks from incineration and mixed waste landfill. It largely dismisses the risks associated with ultrafines, surprisingly claiming they are merely a “perception”.

The report places too much confidence in the effectiveness of regulation and technical controls, as they have often failed. The precautionary principle would recommend avoiding these hazardous techniques. The issues of social health and people’s perceptions, anxieties and well-being are, unfortunately, not given sufficient importance.

Jobs

BAN Waste’s proposals would provide 300-400 jobs. The development of businesses using recycled materials would provide a further 300-600. This is one of the fastest growing sectors of the European economy and employment in this field in the North East could double in the next decade. Nova Scotia, with a population of 1 million, created 3,000 jobs in its shift to resource recovery. BAN Waste urges Newcastle Council, in partnership with ONE North East, to support Resource Recovery businesses.

Strengthening Democracy and Community Involvement

The strategy outlined by BAN Waste would have a positive effect on social cohesion and inclusion. As it is based on a partnership, it would encourage community involvement in the delivery and operations of public services. The strategy would increase care for the community and environment. It will improve Newcastle’s reputation and cleanliness of its streets.

The experiences of BAN Waste and the example of the energy and commitment of its members could help strengthen local democracy, community participation and public services.



Conclusions

We Have To Change

The need to protect the environment for ourselves and future generations means we have to stop throwing away mountains of waste and creating pollution that is damaging to health and the environment. We have to move from waste disposal to resource recovery. British and European law states that we have to recycle and compost more and in the next few years these laws are going to become stricter.

Newcastle has to change! The city faces a choice. The Council's proposed policy may not meet present targets and will struggle with future legislation. It is still based on waste disposal, is inflexible and has few wider benefits. If an incinerator is proposed it would face several years delay, due to opposition and the planning process, and with no certainty of gaining permission.

BAN Waste has outlined an affordable policy that meets present government targets and likely future ones. It concentrates financial and human resources at the top of the waste hierarchy and on people. Introducing a new waste strategy and achieving the levels outlined in this report will take a number of years. However, the strategy is flexible enough to allow for the transition, to handle the waste that isn't recycled and composted and exceed all the government's short-term targets. BAN Waste's strategy is based on what other cities in Europe and North America are already doing. A key feature would be strong community involvement and a well-motivated workforce. It moves the city's policy up the waste hierarchy and towards Zero Waste, an aim endorsed by the Council in 2002.

It would make Newcastle a leader in the move to resource recovery.

Summary of Outcomes of Proposed Strategies

	BAN Waste	Newcastle Council
Meet Existing Government Short-term Targets	2	2
Meet Existing Government Long-term Targets	2	1
Meet Proposed New Legislation	2	0
Deliverable at Reasonable Cost	1	1
Minimise Organisational Change	0	2
Increase the Number of Rewarding Jobs	2	1
Create New Business Opportunities	2	1
Improve the East End of Newcastle	2	0
Enhance Newcastle's Reputation	2	1
Strengthen Community Involvement & Democracy	2	0
Protect the Environment	2	1
Reduce the Risk of Harm to Health	2	1
Move towards Resource Recovery Strategy	2	1

0: Will not meet Aim or Little or No Fundamental Improvement on the Present

1: Meets Aim or Modest Improvement on the Present

2: Exceeds Aim or Significant Improvement on the Present

To realise the strategy outlined by BAN Waste will require a change in approach from Newcastle Council and the waste industry.

Priorities should move from waste disposal and technologies of handling waste to Resource Recovery and working with people.

It will be a challenge to achieve BAN Waste's proposals, but it is also a great opportunity as standing still is not an option. It is always a challenge to be a successful and leading city. BAN Waste knows that the people and city of Newcastle can respond to the challenge. Newcastle's environment, reputation, resources, people's health and abilities are all 'Too Good to Waste'.

If you would like a copy of this report in large print please contact BAN Waste at the address on the back cover.



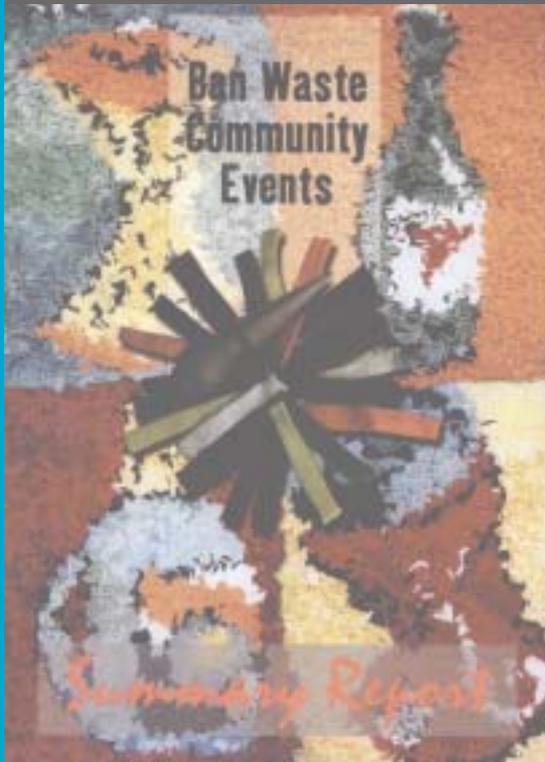
Our world • Our waste
Our Choice



SUMMARY

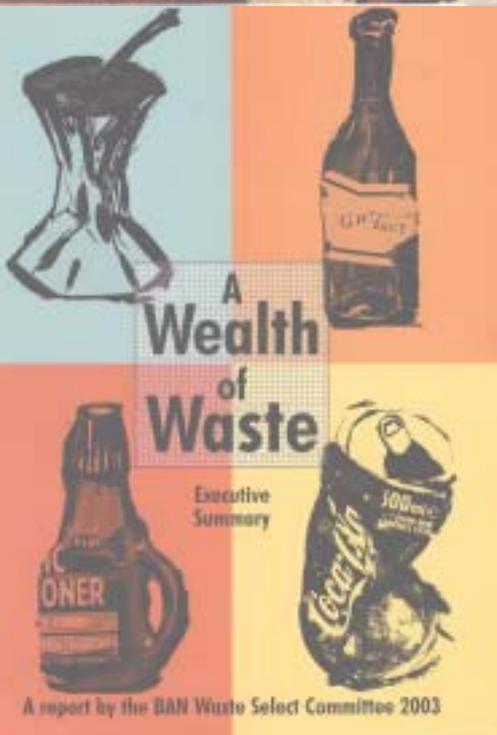
BAN WASTE SELECT COMMITTEE INTERIM REPORT

**Ban Waste
Community
Events**



**A
Wealth
of
Waste**

Executive
Summary



A report by the BAN Waste Select Committee 2003



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