



Information Pack

Proposed new waste facilities for Derby and Derbyshire

March 2009

For more information contact:

FREEPHONE 0800 1303 505

Email: info@resourcerecoverysolutions.co.uk

Online: www.resourcerecoverysolutions.co.uk

Contents

- 1. Overview**
- 2. Sinfin Lane**
- 3. Magfern's Yard**
- 4. Clover Nook**
- 5. Who is Resource Recovery Solutions?**
- 6. Key Facts**
- 7. Timescales**

1. Overview

New waste facilities for Derby and Derbyshire

Resource Recovery Solutions (Derbyshire) Ltd, a partnership between United Utilities and Interserve, was recently chosen as the preferred bidder by Derby City Council and Derbyshire County Council for their joint waste management contract.

As part of this contract, RRS is looking to develop new facilities across Derby and Derbyshire - to meet targets to increase recycling levels and divert waste from landfill.

This information pack is designed to provide you with more information on the proposals and why a new approach to managing Derby and Derbyshire's non-recyclable waste is needed.

The need for new facilities

In Derby City and Derbyshire, over 500,000 tonnes of municipal waste is collected each year. In 2007/8, more than 295,000 tonnes was sent to landfill – enough waste to fill a third of Wembley Stadium.

We can't keep relying on landfill:

- We must act to reduce the environmental impact of landfill - when waste is landfilled it creates methane which is a potent greenhouse gas
- Derby City Council and Derbyshire County Council could face costs of millions of pounds if they don't meet strict targets to reduce landfill – which could see Council Tax increase

Reducing, reusing and recycling is an important part of managing Derby and Derbyshire's waste sustainably. RRS will work with the Councils to minimise the amount of waste produced and to encourage households to recycle as much as possible. Derby City Council and Derbyshire County Council have set a joint recycling target of 55% by 2020. The waste hierarchy diagram below shows how the different ways in dealing with waste fit together, and that reduction, re-use and recycling of waste should always be the first option.



However, not all waste can be managed this way and extra facilities are needed to deal with the waste left after recycling and to reduce the amount sent to landfill.

Derbyshire County Council, Derby City Council and the eight district/borough councils have developed the Joint Municipal Waste Management Strategy (June 2006) to look at how the amount of municipal waste being produced, and sent to landfill, can be reduced. The strategy provides a framework for how municipal solid waste will be dealt with in the County and City over the next 20 years to ensure that Government targets are met.

Against this background, both Council's tendered for bidders to take forward a joint waste management contract. Resource Recovery Solutions (Derbyshire) Ltd was selected in December 2008 as the preferred bidder by Derby City

Council and Derbyshire County Council. The 27-year contract will see £500 million invested in Derby and Derbyshire. This contract is not a Private Finance Initiative.

What facilities are being proposed?

As part of this contract RRS is looking to develop:

- A new Waste Treatment Facility and Visitor and Education Centre at **Sinfin Lane**, Derby
- A new Waste Transfer Station at **Clover Nook Industrial Estate**, Alfreton, Derbyshire
- A temporary Waste Transfer Station at **Magfern's Yard**, Downing Road, Derby

A future Waste Transfer Station is also planned for Chesterfield. This will be subject to a separate planning application and stakeholder and community engagement process.

RRS will be managing the Household Waste Recycling Centres (where the public can recycle and dispose of their waste) across Derby and Derbyshire. A 60% recycling/composting target by 2012 has been set for the HWRCs. Future waste management facilities will be developed jointly by the Councils and RRS.

What happens to your waste?

Derby City Council and Derbyshire County Council have set a joint recycling target of 55% by 2020. The Joint Municipal Waste Management Strategy sets out the extensive waste minimisation, reuse, recycling and composting services which are being expanded to ensure that this target is met. The new facilities proposed by RRS will help to exceed this target, reduce landfill and recover energy from the residual waste left over after recycling has taken

place.

Benefits

The proposals offer a number of benefits:

- Providing an alternative to mass landfilling which is no longer ethically, environmentally or financially sustainable
- Diverting around 180,000 tonnes (equivalent to the weight of **23,904 double decker buses**) of waste from landfill
- Assisting in reducing Derby City Council and Derbyshire County Council's carbon footprint – saving over 48,000 tonnes of carbon dioxide every year, as calculated by the Environment Agency's WRATE (Waste and Resources Assessment Tool). The equivalent of taking more than **16,000 cars off the road each year**
- Helping the Councils avoid significant fines if they don't meet strict targets to reduce landfill – which could see Council Tax increase
- Meeting Landfill Allowance Trading Scheme (LATS) targets each year up to 2020 and beyond
- Offering value for money
- Representing an investment of **£500 million** in Derby and Derbyshire. This contract is not a Private Finance Initiative (PFI)
- Helping Derby City Council and Derbyshire County Council meet its joint recycling target of 55% by 2020
- Allowing energy to be recovered from the waste left over after recycling has taken place, generating enough **electricity to power 14,000 homes**
- Using proven, safe technologies for waste management
- Redeveloping a contaminated site at Sinfin Lane
- Creating employment opportunities for local people

Informing and involving local people

Before we submit planning applications for these facilities, RRS is informing and involving the local community and interested parties.

We are hosting public information days to give people the opportunity to view the proposals, ask questions and give feedback.

The public information days are taking place in Derby and Derbyshire at:

- **Monday, 9th March, 12-7pm** - Derby Assembly Rooms, Market Place, Derby City Centre
- **Wednesday, 11th March, 12-7pm** - The Family Centre, St Stephen's Church, Sinfin Lane, Derby
- **Monday, 16th March, 12-7pm** - Genesis Centre, 32-46 King Street, Alfreton, DE55 7DQ
- **Tuesday, 17th March, 2pm-9pm** - Sinfin Moor Social Club, Arleston Lane, Stenson Fields, Derby, DE24 3DH

There are a number of other ways you can feedback on the proposals.

Feedback forms will be available at the public information days where you can register your views and ask any questions. You can also have your say by contacting RRS in the following ways:

- calling the FREEPHONE information line on 0800 1303 505
- writing to us at the FREEPOST address FREEPOST RSAU-GHZX-RAKG, Resource Recovery Solutions (Derbyshire), 4 Clearwater, Lingley Green Avenue, Warrington, WA5 3UZ
- emailing info@resourcerecoverysolutions.co.uk
- via the online feedback form on the website www.resourcerecoverysolutions.co.uk

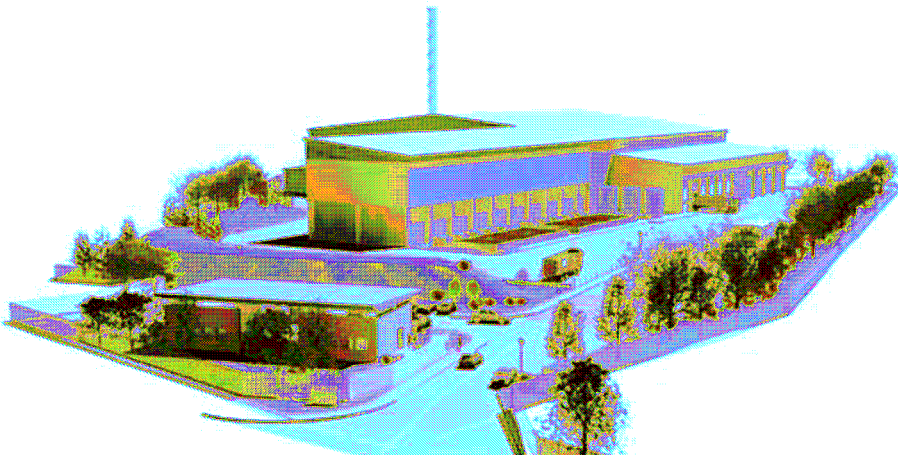
When the applications have been submitted to the relevant Council, you will be able to comment on each proposal directly to Derby City Council and Derbyshire County Council, who will undertake their own formal consultation

as part of the planning process. Information on how to do this will be available on Derby City Council and Derbyshire County Council's websites.

For the Sinfin Lane proposals, we are also establishing a Community Liaison Group in Derby, made up of elected members and representatives from the Sinfin and Normanton Neighbourhood Boards. Neighbourhood Board members are elected by the local Neighbourhood Forums to represent the wider community's views. If you would like to contribute your views to the Community Liaison Group you should contact your local Neighbourhood Forum.

Subject to the approval of the Sinfin Lane application the Community Liaison Group will be kept in place throughout the construction and operation of the facility to act as a forum for involving the local community.

2. Sinfin Lane



Artists impression – entrance off Sinfin Lane

Q Why has the Sinfin Lane site been chosen?

RRS undertook an assessment of potential sites in the area, with Sinfin Lane being identified as the most appropriate. The criteria used during this process included availability, risk of flooding and the size of the site. In addition, the site has good connections to the local highways.

Q What is currently on the site?

The site is undeveloped following the demolition of the previous tannery buildings that occupied the site. The area is now made up of rough grass and shrub vegetation, with no buildings visible above ground.

Q What is being proposed for Sinfin Lane?

A state-of-the-art recycling and treatment facility is proposed at Sinfin Lane in Derby. It will accept up to 200,000 tonnes of residual waste per year from Derby City and Derbyshire.

The new waste treatment facility will include:

- A Waste Treatment Facility Reception and Recycling Hall to store and sort waste received at the site
- A Mechanical Biological Treatment (MBT) facility which creates a Mixed Waste Fuel
- An Advanced Conversion Technology (ACT) facility which converts the energy contained in the Mixed Waste Fuel into useful electrical energy
- A Visitor and Education Centre which will give local schools and members of the public the opportunity to learn more about waste management, and can be used as a local community centre facility

This contract does not include collecting, managing or receiving recyclable materials from kerbside collections or recycling banks, which will be unaffected by these proposals. These recycling services will continue to be expanded by the Derbyshire Councils and sent to the normal recycling processors.

Q Where will the facility accept waste from?

The facility will accept waste from Derby and Derbyshire.

Q How much waste will the facility process?

The facility will process up to 190,000 tonnes of waste per year from Derby and Derbyshire. It will divert up to 180,000 tonnes of waste from landfill.

Q Does the facility conform to the ‘waste hierarchy’?

Yes. Reducing, reusing and recycling are an important part of managing Derby and Derbyshire’s waste. RRS will work with Derby City Council and Derbyshire County Council to encourage people to minimise waste and increase reuse and recycling, in line with the joint Council target to meet recycling levels of 55% by 2020. However, not all waste can be dealt with this way and new facilities are needed to reduce the amount of residual waste (left after recycling) being sent to landfill.

Q How will the Mechanical Biological Treatment (MBT) facility work?

The Mechanical Biological Treatment (MBT) facility converts the remaining non-recycled waste into a renewable fuel. The facility will be capable of processing approximately 60,000 tonnes of waste per year.

Step 1 ‘Black bag’ rubbish is delivered to the waste reception hall, where cranes will remove large recyclables and non-processible objects

Step 2 The material is then dried for a period of approximately two weeks. This treats the waste by stabilising it using natural biological processes

Step 3 The dried waste is screened and further items are removed for recycling such as stones, glass and metals. The remaining material, known as Refuse Derived Fuel, is then mixed with other non-recycled, non-hazardous household waste to create a Mixed Waste Fuel, which can then be used in the ACT facility to generate renewable electricity.

Q How will the Advanced Conversion Technology (ACT) facility work?

The ENERGOS Advanced Conversion Treatment (ACT) facility uses a patented gasification process to recover energy from the Mixed Waste Fuel prepared by the MBT facility. This state-of-the-art technology turns waste to energy in an efficient and environmentally friendly process.

- The facility uses a gasification process which generates an energy-rich syngas (synthetic gas) from the prepared fuel under strictly controlled conditions
- The syngas produced is collected and used as a fuel to generate steam in high efficiency traditional boilers
- This steam is then fed into a turbine which generates renewable electricity which is supplied to the local grid
- The inert ash left over from the gasification process will be used in as an aggregate replacement in concrete block manufacture

Q Are these technologies proven?

Entsorga, the proposed partner for the MBT process, have a number of similar schemes operating, or in development, within Europe. A major new facility is planned for Wiltshire and another facility in Vazzano, Italy is operational.

ENERGOS is the proposed partner for the ACT process. The ENERGOS technology was specifically chosen by RRS due to its proven track record. ENERGOS has seven plants operating in Europe, similar to those proposed at Sinfin Lane. This includes the Isle of Wight in the UK, Scandinavia and Germany. ENERGOS waste management

facilities are planned in several locations across the UK, including Ayrshire, Merseyside and North Lincolnshire.

Q How many jobs will the facility create?

The facility will create 38 operational jobs and between 60 and 80 construction jobs. During the construction of the facility, the contractor will work to establish relationships with a number of local suppliers and businesses.

Q What is the construction timetable for this facility?

If planning permission is granted for the facility, construction is expected to begin on site in April 2010. The Reception and Recycling Hall will be operational by October 2011 and the ACT plant will be delivered around June 2012 when the site will become fully operational.

Q What are the operating hours of the facility?

The facility will operate 24-hours a day, seven days a week. Deliveries to the facility will only take place:

Monday – Friday: 7am – 5pm

Saturday: 7am – 1pm

Sunday: 7am – 9am

Q Do you need an Environmental Permit to operate the facility?

There are a number of directives and regulations that apply to any waste facility. In addition to securing planning permission, the proposed facility must gain a permit to operate from the Environment Agency. The permit (granted under the Environmental Permit Regulations) will control all operations and will only be granted if the Environment Agency is sure that the facility can be operated without significant adverse impact on people and the environment.

Q Will this mean more traffic?

A Transport Assessment, which will form part of the planning application, will contain final traffic figures for the development. At this stage it is expected that the new development would generate 160 vehicles visiting the site, which would lead to an increase in traffic of 3% on Sinfin Lane. The local network can easily accommodate this increase.

Q If I live close to the site will I be able to see the facility?

A Landscape and Visual Impact Assessment will accompany the planning application, which will outline measures to protect local people against the visual impact of the facility. The facility will be designed to minimise the visual impact. The facility will be set back towards the rear of the site, away from residential housing and a landscaped earth bank with trees and shrubs would be constructed between the new facility and the adjacent Railway Cottages. The facility will have an attractive, modern design in keeping with other buildings in the area. A Landscape Master Plan will also be prepared for the site, which will take into account any additional landscaping that the Landscape and Visual Impact Assessment identifies. The layout of the facility has been designed so that the Visitor and Education centre and offices are the buildings visible from Sinfin Lane.

Q Will it smell?

All areas of the facility will be strictly controlled and designed to minimise odours. Waste will be delivered by enclosed vehicles into an enclosed reception area before being processed.

All processes will operate in a fully enclosed, purpose built facility. The proposed new waste treatment facility will operate under a negative air pressure system to prevent odour. The system works by sucking air

into the building when the doors are opened preventing any odours escaping from the facility.

Q Will it be noisy?

Before we can operate any new facilities we will need planning permission from Derby City Council and a permit from the Environment Agency. These will only be granted if the Council and the Environment Agency can be satisfied that the proposed facility can operate without adverse impacts on people and the environment.

The Environmental Permit required to operate the facility will set acceptable noise levels. All areas of the facility will be designed and built to minimise noise impacts. The operations will be enclosed within buildings designed to retain noise.

Q Will the facility produce emissions?

European Directives have set strict emissions limits for modern waste management facilities, to ensure local communities and the environment are protected. These limits are strictly regulated by the Environment Agency. In order to operate, the facility must have an Environmental Permit from the Environment Agency.

Emissions from the ENERGOS ACT process are significantly lower than European Union limits. RRS will have to constantly monitor these emissions to ensure that the plant is always operating within these limits. The plant will be required to operate within strict limits as part of the Environmental Permit from the Environment Agency.

Q How green will the facility be?

Managing waste this way will help towards combating climate change by diverting waste from landfill, recycling more waste, reducing waste

transport movements and generating energy. This will save over 48,000 tonnes of carbon dioxide being produced per year (as calculated by the Environment Agency's WRATE tool). The equivalent of taking more than 16,000 cars off the road per year.

The design of the facility will be guided by the sustainable principles set out in the Governments Strategy 'Building a better quality of life – A strategy for more sustainable construction'. A Sustainability Assessment will also be undertaken as part of the planning application process.

3. Magfern's Yard



Magfern's Yard - The Site

Q What is currently on the site?

The site is located on West Meadows Industrial Estate and presently operates as a Waste Transfer Station, which is operated by Magfern's Recycling Ltd.

Q What is being proposed?

RRS' delivery of new waste management facilities will be phased. An initial Waste Transfer Station is proposed at Magfern's Yard, West Meadows Industrial Estate, Downing Road, Derby. The Waste Transfer Station at Magfern's Yard would be required for a temporary period of about two years whilst the Sinfin Lane facility is being built. The Waste Transfer Station will replace the existing facility on the site, currently operated by Magfern's Recycling Ltd.

The Waste Transfer Station will be used to transfer waste collected from refuse collection vehicles onto bigger vehicles for onward disposal to landfill. The facility will accept up to 110,000 tonnes of 'black bag' rubbish per year.

The proposed facility will include:

- a new free-standing waste handling building
- a weighbridge
- a new gatehouse
- keeping existing separate office/facilities
- existing vehicle delivery and car parking areas

Q Why was this site chosen for a Waste Transfer Station?

The site was considered appropriate as it already operates as a Waste Transfer Station and is located close to where waste is produced reducing the distances refuse collection vehicles have to travel.

Q What is the Waste Transfer Station for?

Once 'black bag' rubbish is collected from households, if it cannot be delivered directly to a disposal point the waste will go to a transfer station where it will be transferred onto bigger vehicles for onward disposal. The use of bigger vehicles helps to reduce carbon dioxide levels as fewer vehicles are needed to transport the waste. The Waste Transfer Station will also allow the waste to be temporarily stored, if the landfill disposal point is ever closed due to poor weather conditions.

Q How much waste will the facility process?

The facility will accept up to 110,000 tonnes of 'black bag' rubbish per year.

Q Will it smell?

All handling of waste will take place inside enclosed buildings, and not stored or handled in the open air. The building will be designed to minimise and control odour. Odour control sprays will be installed on doors.

Q Will it be noisy?

The facility will be designed to minimise noise and all handling of waste will take place inside enclosed buildings. The planning permission needed to build the Waste Transfer Station will set strict limits for noise to ensure that the facility has no unacceptable impact on local people.

Deliveries to the facility will only take place:

Monday – Friday: 7am – 5pm

Saturday: 7am – 1pm

Sunday: 7am – 9am

Before we can operate any new facilities we will need planning permission from Derbyshire County Council and a permit from the Environment Agency. These will only be granted if the Council and the Environment Agency can be satisfied that the proposed facility can operate without adverse impacts on people and the environment.

Q Will this mean more traffic?

The planning application will be accompanied by a full Transport Assessment which is currently being undertaken. It is anticipated that there will be around 89 traffic movements to the site per day. The existing access from Downing Road will be used to access the site.

4. Clover Nook



Clover Nook – Artists Impression

Q What is currently on the site?

The site is located off Grange Close, Clover Nook Industrial Estate, Alfreton, Derbyshire.

Q What is being proposed?

The Waste Transfer Station will be used to transfer waste collected from refuse collection vehicles onto bigger vehicles for onwards disposal to the new facility at Sinfin Lane, Derby.

The facility will include:

- a new waste handling building
- a weighbridge
- sufficient purpose-built storage to hold 4 average days inputs
- offloading areas for gully waste for dewatering, road sweepings, street cleansing and a steel container to store low hazardous clinical waste
- in-built safety systems to ensure that risks associated with on site traffic movements and tipping are eliminated

Q Why was this site chosen for a Waste Transfer Station?

The site was chosen because it already has an existing planning permission for a waste facility, has good access to the road network and is located near to where waste is collected reducing the distances refuse collection vehicles have to travel.

Q What is the Waste Transfer Station for?

Once 'black bag' rubbish is collected from households, if it cannot be delivered directly to a disposal point the waste will go to a transfer station where it will be transferred onto bigger vehicles for onward disposal. The use of bigger vehicles helps to reduce carbon dioxide levels as fewer vehicles are needed to transport the waste.

Q How much waste will the facility process?

The facility will accept up to 50,000 tonnes of 'black bag' waste per year.

Q Will it smell?

All handling of waste will take place inside enclosed buildings, and not stored or handled in the open air. The building will be designed to minimise and control odour. Odour control sprays will be installed on doors.

Q Will it be noisy?

The facility will be designed to minimise noise and all handling of waste will take place inside enclosed buildings. The planning permission needed to build the Waste Transfer Station will set strict limits for noise to ensure that the facility has no unacceptable impact on local people.

Deliveries to the facility will take place:

Monday – Friday: 7am – 5pm

Saturday: 7am – 1pm

Sunday: 7am – 9am

Before we can operate any new facilities we will need planning permission from Derbyshire County Council and a permit from the Environment Agency. These will only be granted if the Council and the Environment Agency can be satisfied that the proposed facility can operate without adverse impacts on people and the environment.

Q Will this mean more traffic?

The planning application will be accompanied by a full Transport Assessment which is currently being undertaken. It is anticipated that there will be around 54 traffic movements to the site per day. A new access junction onto Grange Close will be constructed. Full details will be outlined in the Transport Assessment.

5. Who is Resource Recovery Solutions?

Resource Recovery Solutions Ltd (RRS) is a partnership between United Utilities and Interserve. RRS provides cost effective and environmentally sound waste management solutions for local authorities. For more information visit <http://www.resourcerecoverysolutions.co.uk>

United Utilities is the UK's largest listed water company. United Utilities owns, operates and maintains utility assets including water, wastewater, electricity and gas. United Utilities is a UK FTSE 100 company, has a turnover of £2 billion and is the UK's market leader in utility outsourcing. United Utilities operates a highly successful multi-utility connection business and manages metering contracts. United Utilities provides services to over 20 million people worldwide – across Europe, the Middle East, Australia and the Philippines.

For further details about United Utilities visit <http://www.unitedutilities.com/>

Interserve is a services, maintenance and building group operating in the public and private sectors, both in the UK and internationally. The company offers advice, design, construction and facilities management services for society's infrastructure and provides a range of plant and equipment in specialist fields.

For further details about Interserve visit: <http://www.interserveplc.co.uk/>

6. Key Facts

Key Facts	
Total amount -of municipal waste produced in Derby City and Derbyshire (2007/8)	530,000 tonnes
Amount of waste recycled (Kerbside recycling and other recycling) (2007/8)	153,000 tonnes
Amount of residual municipal solid waste landfilled (2007/8)	296,200 tonnes
Amount of waste received by Household Waste Recycling Centres (HWRCs) (2007/8)	77,800 tonnes
Recycling performance at HWRCs (2007/8)	51%
Recycling Target at HWRCs (2012)	60%
Overall Recycling performance of Councils (2007/8)	38%
Overall Recycling Target of Councils (2020)	55%
Recycling target at Treatment Plant	5%
Planned Recycling rate at Treatment Plant	10%
Waste Reception Capacity of Sinfin Lane facility	200,000 tonnes
Waste Treatment Capacity of Sinfin Lane facility	190,000 tonnes
Energy generation of Sinfin Lane	8 MWh (14,000 homes)
Capacity of Magfern's Yard facility	110,000 tonnes
Capacity of Clover Nook facility	50,000 tonnes
Reduction in carbon emissions due to the Sinfin Lane facility (calculated by Environment Agency's WRATE tool)	48,239 tonnes carbon dioxide per year
Total employment opportunities created:	
Operational jobs	38
Construction jobs	60-80
Total investment in Derby and Derbyshire under the contract	£500 million
Contract duration	27 years

7. Timetable

Site	Public Engagement	Application to be Submitted	Expected determination	Expected Opening
Sinfin Lane	March 2009	April 2009	Summer 2009	Phase 1 – Oct 2011 Phase 2 – June 2012
Magfern's Yard	March 2009	April 2009	Summer 2009	April 2010
Clover Nook	March 2009	April 2009	Summer 2009	April 2010