

# RECYCLING



*Giltbrook Household Waste Recycling Centre. Oil is one of a number of common domestic waste materials which can be recycled.*

## INTRODUCTION

- 5.1 Recycling involves the processing of waste materials to produce a usable raw material or product. For example, glass bottles and aluminium cans can be collected and processed back to the original raw material. Recycled material can, in principle, be re-used many times, unlike material which has been composted or burnt to provide energy. Energy recovery from waste and composting are forms of recovery and are considered separately in Chapters 6 and 7 respectively.
- 5.2 Recycling has for a long time been an important feature of the economy, involving a wide range of business sectors. For example, the UK's packaging manufacturing industry uses approximately 30% recycled material, has an annual turnover of £8.5 bn and employs 150,000 people. Steel and non-ferrous scrap are among the best known of established commercial recycling businesses.
- 5.3 Recycling plays an important rôle in helping to achieve a more sustainable system of waste management. Apart from reducing the amount of waste requiring disposal, it helps to conserve natural resources and raw materials. At present, about 20% of the UK's controlled waste is recycled, although much of this is construction and demolition waste. Recycling rates for household and commercial waste are very poor (see Chapter 1, Table 1.2).
- 5.4 The market for recycled products and the capacity of recycling facilities are at present very limited. The price and availability of virgin raw material has always been a powerful commercial incentive for recycling, but market imperfections and barriers can discourage businesses from exploiting the potential of recycling to the full.
- 5.5 Encouraging recycling, where there are economic and environmental benefits, has been a key component of the Government's waste management policies for many years. The Government continues to encourage greater emphasis on recycling where this represents the "Best Practicable Environmental Option" (BPEO)<sup>1</sup> for particular waste streams.

## ADVANTAGES AND DISADVANTAGES OF RECYCLING

- 5.6 Recycling is not a waste management option to be pursued at any cost. It only makes sense to recycle waste where this represents the most sustainable option for a particular type of waste, once all the relative environmental and economic costs have been taken into account.
- 5.7 The potential advantages of recycling include:
- extending the life and maximising the value extracted from raw materials;
  - potential energy savings;
  - reduced emissions to air and water;

<sup>1</sup> See Chapter 2, Paras 2.20-2.21 for definition

- reduced disposal impacts;
- consumer participation through enhanced public awareness and understanding of environmental issues;
- reducing the environmental impact from mining primary materials.
- The removal of non combustible recyclable materials such as glass and metal from the household waste stream, will significantly increase the heat content of the waste thus making incineration with energy recovery a more viable option.

5.8 The potential disadvantages of recycling include:

- the costs of collection, transport and reprocessing;
- the often higher cost of recycled materials;
- the instability of markets for recycled materials which can rapidly be distorted by changes in the international or domestic supply and demand for these materials;
- recycling facilities may have associated adverse impacts, such as transport movements and unsightliness;
- the removal of combustible recyclable materials such as paper and plastics from the household waste stream, will significantly reduce the heat content of the waste thus making incineration with energy recovery a less viable option.

## RECYCLING HOUSEHOLD WASTE

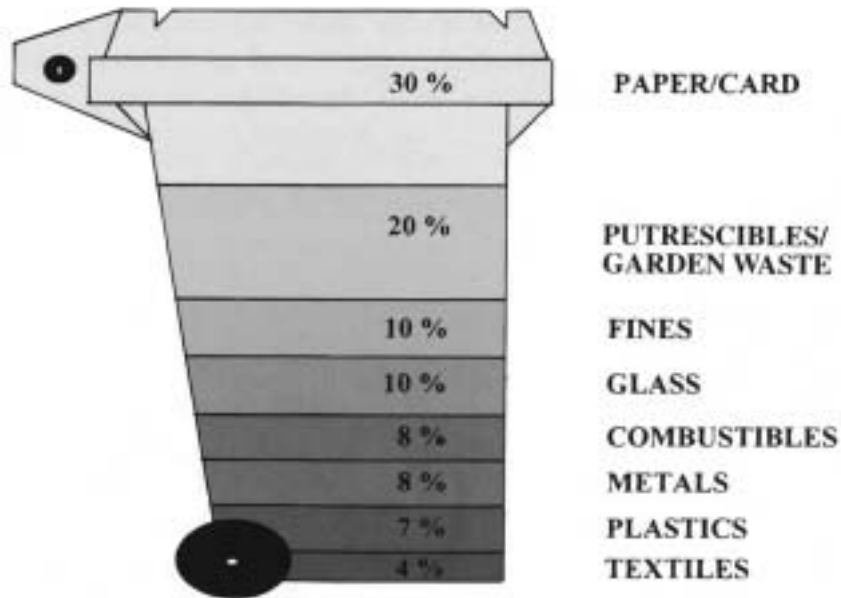
5.9 Only 9% of household waste in the United Kingdom is recycled, although studies have shown that over 50% could be recycled (see Fig. 5.1). In 1994, Central Government set a target<sup>2</sup> for local authorities to recycle 25% of household waste by the year 2000. Waste Strategy 2000 now sets a target of recycling or composting 25% of household waste by 2005 with further increases by 2010 and 2015. Collection authorities, which in Nottinghamshire comprise Nottingham City Council and the District Councils, are required to produce "Recycling Plans" setting out how they will attempt to achieve this recycling target. These are not land-use plans, but rather statements of intent within the broader context set by the Integrated Waste Management Strategies that are being prepared by the County and District Councils and the City Council.

5.10 The Recycling Plans detail the principle measures for achieving recycling through existing mechanisms such as Household Waste Recycling Centres and Mini Recycling Centres. These Plans also set out the potential role of innovative schemes like kerbside collection, where households are given a container into which recyclable materials can be sorted and stored for separate collection. Waste Strategy 2000 recognises that a system based on new facilities and extensive separate kerbside collection of recyclables will be an important element in meeting recovery targets. In order to support

<sup>2</sup> Source: Sustainable Development - The UK Strategy, HMSO, 1994.

potential kerbside collection schemes (which would be implemented by the Waste Collection Authorities or other voluntary environmental organisations), the Waste Local Plan allocates the Eastcroft Site for a Material Recovery Facility (see Policy W5.4). This may increase the economic viability of recycling schemes, including kerbside collection, by allowing localised sorting of materials (see paragraphs 5.19 - 5.22).

**Fig. 5.1 - UK Percentage Contents in Average Refuse Bin**



Note: The Government estimates that at least 50% of the above waste materials are recyclable.  
 Source: Waste Management paper No. 28 HMSO 1991.

5.11 The Waste Local Plan aims to assist the City and District Councils in achieving recycling targets through the promotion of Areas of Search and criteria policies for recycling facilities. Details are set out below:

### Household Waste Recycling Centres

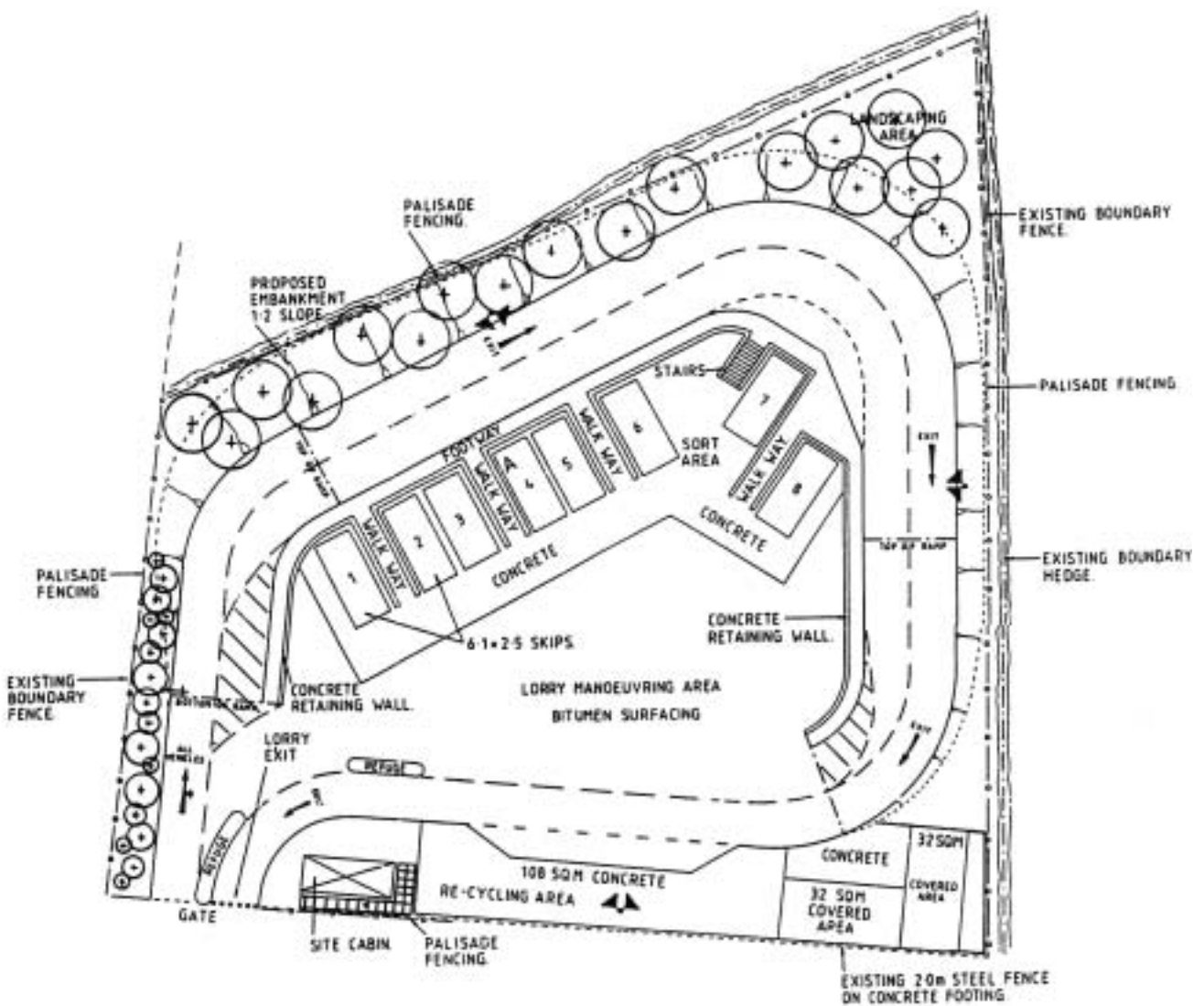
5.12 There are nineteen Household Waste Recycling Centres (HWRCs)<sup>3</sup> within Nottinghamshire which take, free of charge, bulky household and garden waste, delivered by the public. The waste is sorted on site and, where possible, recycled or re-used. The remainder is taken to nearby waste disposal sites. In 1994 Nottinghamshire's HWRCs recycled approximately 8% of the waste brought in. By 1999 the amount recycled increased to 22%.

5.13 Most HWRCs are located close to populated areas (see Plan 5.1) and normally comprise a number of skips alongside parking bays (see Figure 5.2). The waste materials accepted include paper, glass, cardboard, textiles, metals, soils, batteries, fridges and upholstery. Licensed "totters"<sup>4</sup> are employed to sort the waste as it arrives. Sites are normally open seven days a week. The main concerns raised relate to traffic, access and visual impact.

<sup>3</sup> HWRCs - Section 51 of the EPA 1990 require local authorities to provide free facilities where residents may bring household waste at all reasonable hours.

<sup>4</sup> See Glossary.

Figure 5.2 - Illustration of a Typical HWRC.



- 5.14 If the Government's 25% recycling target for household waste is to be achieved, then additional HWRCs will be required during the Plan period to serve existing and new developments. Suitable sites are most likely to be located within existing employment sites or those designated in the City and District Councils' Local Plans, where visual and traffic impact is minimal. Disposal sites are also potentially suitable location for HWRCs (as at Burntstump Landfill Site) provided the life of the development is limited to waste disposal operations. In order to encourage more HWRCs Policy W5.1 below identifies employment sites within which this type of development is considered to be appropriate. Proposals in other existing employment sites or those designated in the City and District Councils' Local Plans will be permitted where it can be demonstrated that there is no unacceptable environmental impact. Policy W5.2 promotes HWRCs in existing and future waste disposal sites.

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## **POLICY W5.1**

**PROPOSALS FOR NEW HOUSEHOLD WASTE RECYCLING CENTRES WILL BE PERMITTED IN THE FOLLOWING EMPLOYMENT SITES:**

- (a) HARWORTH;
- (b) FIRBECK;
- (c) OLD MILL LANE, MANSFIELD;
- (d) COLWICK SITE 1;
- (e) COLWICK SITE 2;
- (f) EASTCROFT.

**PROPOSALS OUTSIDE THESE PREFERRED AREAS WILL BE PERMITTED IN OTHER EXISTING EMPLOYMENT SITES OR THOSE DESIGNATED IN THE CITY AND DISTRICT COUNCILS' LOCAL PLANS WHERE IT CAN BE DEMONSTRATED THAT THERE IS NO UNACCEPTABLE ENVIRONMENTAL IMPACT.**

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## **POLICY W5.2**

**PROPOSALS FOR HOUSEHOLD WASTE RECYCLING CENTRES WILL BE PERMITTED AT WASTE DISPOSAL SITES PROVIDED THERE IS NO UNACCEPTABLE ENVIRONMENTAL IMPACT AND THEY ARE TIED TO THE LIFE OF DISPOSAL OPERATIONS.**

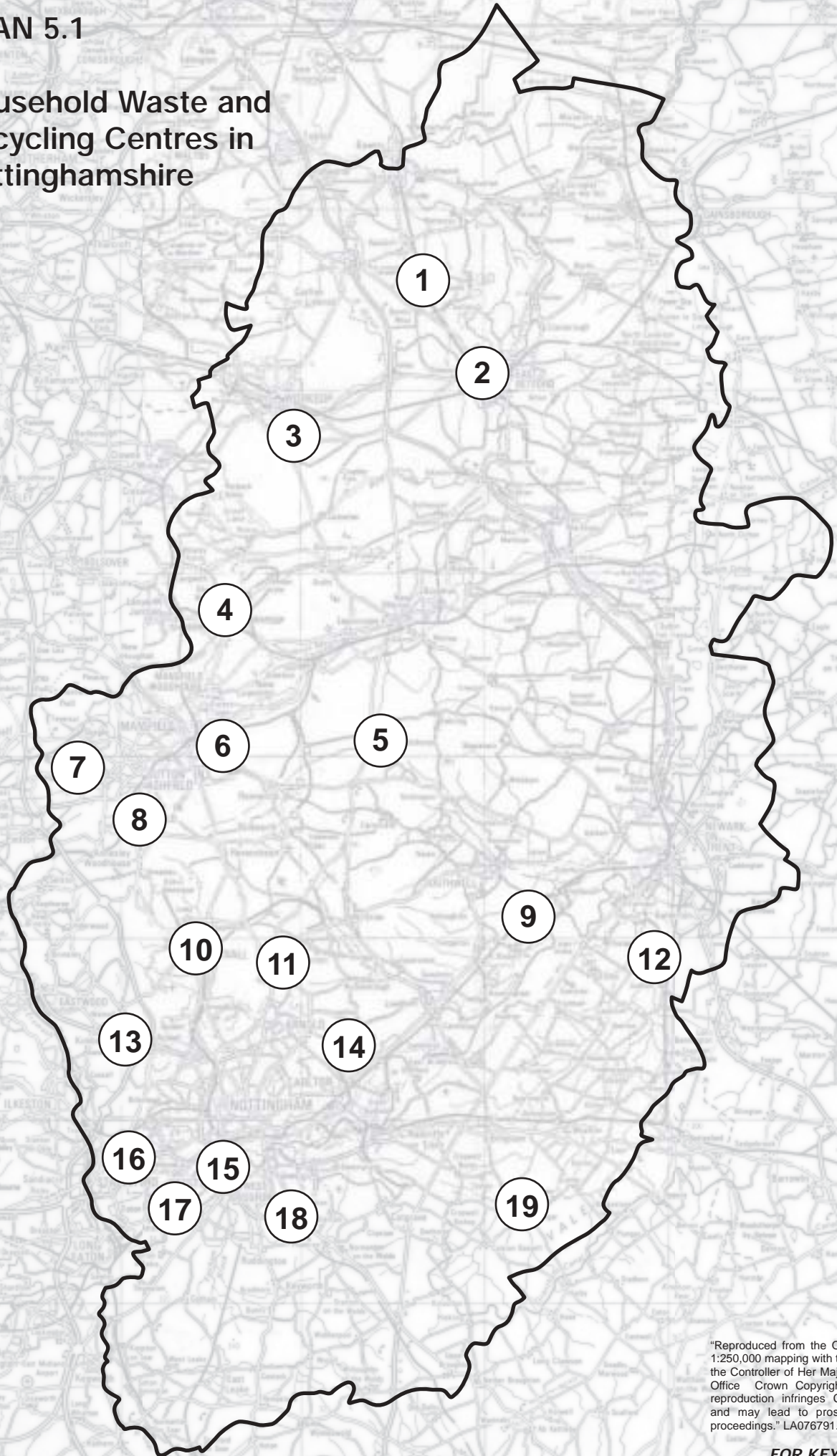
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### **Mini-Recycling Centres**

- 5.15 From just a few experimental schemes in the early 1980s, Mini-Recycling Centres (MRCs) have become familiar features at most shopping centres and other public locations. They include bottle, paper, can and occasionally textile and plastic banks. They are provided by the County, City and District Councils, the retail industry and voluntary sector.
- 5.16 Most MRCs raise few environmental concerns and consist of no more than a few small banks in the corner of a car park. Traffic generation is rarely an issue, as schemes are purposely located in areas where the public would already be visiting. Where proposals are more significant and/or are in sensitive areas, planning permission may be required. The County Council and/or the relevant District Council, or the City Council should therefore be consulted to clarify the need for planning permission, regardless of the size of the scheme.
- 5.17 The City and most District Councils in Nottinghamshire have proposed to increase the number of MRCs in their Recycling Plans. This will help Local Authorities meet the Government's target for recycling 25% of household waste. The number of MRCs will have to increase very significantly if the Government's target, set out in Waste Strategy 2000, is to be achieved.

# PLAN 5.1

## Household Waste and Recycling Centres in Nottinghamshire



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## KEY TO PLAN 5.1

### Household Waste and Recycling Centres in Nottinghamshire

#### Location

1. Daneshill, near Retford
2. Hallcroft Road, Retford
3. Dukeries Industrial Estate, Clayland Avenue, Worksop
4. Oakfield Lane, Worksop
5. Brailwood Road, Bilsthorpe
6. Kestral Park, Mansfield
7. Sutton, Off Huthwaite Road
8. Sidings Road, Lowmoor Industrial Estate
9. Fiskerton Landfill Site
10. Baths Lane, Hucknall
11. Burntstump, A614 Calverton
12. Hawton Lane, Newark
13. Gilthill, Giltbrook
14. Gedling Colliery
15. Redfield Road, Lenton Industrial Estate
16. Nottingham Road, Stapleford
17. Lilac Grove, Beeston
18. Greythorn Drive, West Bridgford
19. Coach Gap Lane, Langar

Scale: 1:312,500 (1" to 5 miles) 1cm = 3.125km



- 5.18 Where planning permission is required, proposals for MRCs will be supported subject to environmental safeguards.

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### **POLICY W5.3**

**WHERE PLANNING PERMISSION IS REQUIRED PROPOSALS FOR MINI RECYCLING CENTRES WILL BE PERMITTED SUBJECT TO ADEQUATE ENVIRONMENTAL SAFEGUARDS.**

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#### **Material Recovery Facilities**

- 5.19 A Material Recovery Facility (MRF) is designed to take mixed household recyclables and sort them into their respective materials, to allow their recycling. Plants can either receive unsorted wastes, or pre-sorted recyclable wastes. Plants taking unsorted wastes can avoid the costs of kerbside collection. Whilst those taking just recyclable wastes can assist with recycling initiatives by receiving materials already separated at source.
- 5.20 Two major MRFs costing several million pounds have been set up at sites near Leeds and Milton Keynes. Smaller scale and cheaper plants are also located around the country.
- 5.21 MRFs are usually enclosed within a building. After waste is initially stored, it is fed onto a conveyor which takes the waste through the various stages of separation. Waste is generally separated into glass, plastics, aluminium, steel, cardboard and paper and stored temporarily in large skips. HGV transport periodically picks up the material to be taken for recycling. The main environmental concerns relate to the visual impact of the building, and associated car parking, noise, odour and traffic impact.
- 5.22 Within Nottinghamshire, the most suitable location for MRFs is likely to be within the employment sites immediately west of the Eastcroft incinerator. An MRF may also be suitably located within the actual incinerator complex and/or within other existing employment sites or those designed in the City and District Council's Local Plans. Waste Disposal sites may also provide suitable locations provided that the MRF is tied to the life of disposal operations.

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### **POLICY W5.4**

**PROPOSALS FOR A MATERIAL RECOVERY FACILITY WILL BE PERMITTED WITHIN THE EASTCROFT INCINERATOR SITE OR WITHIN THE EASTCROFT EMPLOYMENT SITE.**

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### **POLICY W5.5**

**PROPOSALS FOR MATERIAL RECOVERY FACILITIES WILL BE PERMITTED IN EXISTING EMPLOYMENT SITES OR THOSE DESIGNATED IN THE CITY AND DISTRICT COUNCIL'S LOCAL PLANS PROVIDED THERE IS NO UNACCEPTABLE ENVIRONMENTAL IMPACT.**

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## POLICY W5.6

PROPOSALS FOR MATERIALS RECOVERY FACILITIES WILL BE PERMITTED AT WASTE DISPOSAL SITES PROVIDED THERE IS NO UNACCEPTABLE ENVIRONMENTAL IMPACT AND THEY ARE TIED TO THE LIFE OF DISPOSAL OPERATIONS.

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### RECYCLING CONSTRUCTION AND DEMOLITION WASTE

- 5.23 Most construction and demolition waste can be recycled to form secondary aggregates. Crushed bricks and rubble can be re-used on building sites for levelling purposes, or graded for use in road construction. Using waste in this way conserves mineral resources and so reduces the potential for environmental impact from mineral extraction. For this reason, the use of secondary aggregates is being increasingly encouraged in Government guidance (MPG6).<sup>5</sup> The Government is also researching into how standards and specifications could be modified to favour the use of recycled materials<sup>6</sup>. Felt-roofing and timber can also be reclaimed.
- 5.24 Unfortunately, only half of this waste is presently recycled and most waste is put to very low grade uses such as on-site levelling. This is, in part, because of concern that such material will not meet the standard specifications for construction projects. In addition, the availability of cheap locally won primary minerals makes it very difficult for recycled material to compete economically.

### Aggregate Recycling Centres

- 5.25 Aggregate Recycling Centres (ARCs) crush, screen and sort construction and demolition waste to form secondary aggregates. There are six permanent aggregate recycling centres within Nottinghamshire at Bunny, Fulwood, Mansfield Woodhouse, Worksop and two at Colwick.
- 5.26 In addition, a number of temporary recycling plants operate at some demolition and waste disposal sites. These are mainly used for the purposes of grading waste and soils for disposal and site restoration, although surplus material may be exported for use in the construction industry. Temporary sites do not normally require planning permission unless in-situ for more than 28 days.
- 5.27 Permanent ARCs should be located within employment sites because of the potential for noise, dust, traffic and visual impact. An urban or edge of town location is likely to be essential to minimise haulage costs. In addition mobile recycling plants may also be suitably located within construction sites, waste disposal and mineral sites, provided that these are linked to the life of such operations and do not lead to any unacceptable environmental impact.

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<sup>5</sup> *Minerals Planning Guidance Note No. 6 - Guidelines for Aggregates Provision in England, 1994.*

<sup>6</sup> *Arup Economics & Planning: Occurrence & Utilisation of Mineral & Construction Wastes - HMSO 1991.*

- 5.28 MPG6 forecasts that demand for aggregates in England and Wales could increase from an estimated 240 million tonnes in 1991 to between 370-440 million tonnes by 2011. This represents an increase of 50 to 80%. As the primary resources become depleted, the need to make the best use of waste materials will become ever more urgent. In order to help meet this demand, MPG6 recommends that the annual contribution from secondary aggregates should rise from an estimated 25-30 million tonnes at present to 55 million tonnes per year by 2006 (values for 2011 not given).
- 5.29 Although it is not possible to predict the number of additional facilities needed to meet the Government's target, if it is to be achieved, a major expansion in both permanent and temporary aggregate recycling plants will be required. The introduction of the Landfill Tax<sup>7</sup> is likely to increase the demand for such facilities. In order to encourage ARCs, Policy W5.7 below identifies 7 employment sites considered to be suitable for this type of development. Proposals outside these sites are only considered to be suitable in other existing established employment sites or those designated in the City and District Council's Local Plans, which have similar environmental advantages, such as good access and limited impact on local amenity.

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## **POLICY W5.7**

**PROPOSALS FOR PERMANENT AGGREGATE RECYCLING CENTRES WILL BE PERMITTED IN THE FOLLOWING EMPLOYMENT SITES:**

- (a) FIRBECK;
- (b) BOUGHTON;
- (c) BRAILWOOD ROAD, BILSTHORPE;
- (d) OLD MILL LANE, MANSFIELD;
- (e) BELVOIR IRONWORKS.
- (f) COLWICK SITE 1;
- (g) EASTCROFT.

**PROPOSALS OUTSIDE THESE PREFERRED AREAS WILL ALSO BE PERMITTED IN EXISTING EMPLOYMENT SITES OR THOSE DESIGNATED IN THE CITY AND DISTRICT COUNCILS' LOCAL PLANS WHERE IT CAN BE DEMONSTRATED THAT THERE IS NO UNACCEPTABLE ENVIRONMENTAL IMPACT.**

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## **POLICY W5.8**

**PROPOSALS FOR TEMPORARY AGGREGATE RECYCLING CENTRES WILL BE PERMITTED IN WASTE DISPOSAL, MINERAL AND/OR CONSTRUCTION SITES PROVIDED THAT THEY ARE LINKED TO THE LIFE OF OPERATIONS AND DO NOT CREATE ANY UNACCEPTABLE ENVIRONMENTAL IMPACTS.**

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<sup>7</sup> The Landfill Tax was introduced in October 1996, its aim being to encourage recycling by taxing most waste disposed of at Landfill Sites.

## RECYCLING SOILS

- 5.30 Surplus top and subsoils arise from a wide range of construction activities. Depending on the quality, quantity and location there may be a ready market for such material in the landscaping and horticultural trades. Even where soil is taken to disposal sites it will generally be used as a reclamation material rather than being disposed of as waste.
- 5.31 Where soils are recycled purely for agricultural usage planning permission is not required. However, at some farms in the County such development has evolved into purpose built recycling centres which export soils for general use. In such cases planning permission is required. Soil recycling facilities may also be suitable within existing employment sites or those designated within the District and City Council's Local Plans.
- 5.32 Acceptable schemes are likely to be small scale and with no detrimental impact on local amenity. In this respect remoteness from residential areas and screening are likely to be important factors. Additionally their form, bulk and general design must be in keeping with their surroundings. Normally this suggests that sites close to or within buildings will be the most appropriate.

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## POLICY W5.9

**PROPOSALS FOR SMALL SCALE SOIL RECYCLING SCHEMES WILL BE PERMITTED WITHIN EXISTING AGRICULTURAL BUILT DEVELOPMENT AND EXISTING EMPLOYMENT SITES OR THOSE DESIGNATED IN THE CITY AND DISTRICT LOCAL PLANS PROVIDED THAT THEIR FORM BULK, AND GENERAL DESIGN ARE IN KEEPING WITH THEIR SURROUNDING AND WHERE IT CAN BE DEMONSTRATED THAT THERE IS NO UNACCEPTABLE ENVIRONMENTAL IMPACT.**

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## RECYCLING INDUSTRIAL/COMMERCIAL WASTE

- 5.33 Industry already recycles large amounts of its manufacturing waste, particularly metals. This is because they can often be re-used with relatively little expense and disposal costs are avoided. However, more could be done in various sectors. Apart from scrap yards (see Paras 5.44-5.51), this type of recycling facility is normally "in-house" and does not fall under planning control.

## RECYCLING MINERALS WASTE

### Colliery Spoil

- 5.34 Collieries are the main source of minerals waste in Nottinghamshire. The main opportunity for re-using colliery spoil is as bulk fill in construction schemes. Transport costs are, however, a major constraint and there have been few occasions where spoil has successfully competed with primary minerals.

## **Dredgings**

- 5.35 Approximately 200-220,000 tonnes of material, comprising of sands, silts and marl, is dredged out of the River Trent annually. Dredgings can potentially be recycled as secondary aggregate for use as bulk fill, or if processed, used in concrete.
- 5.36 To date there has been limited recycling of dredgings in Nottinghamshire, although planning permissions have been granted by the County Council to periodically remove landspread dredgings at 3 sites along the Trent. A further temporary permission has been granted for reprocessing of dredgings stocked at the Gunthorpe Lock Site. At Cromwell dredgings are also disposed of and recycled at a former sand and gravel quarry.
- 5.37 The likelihood of any further dredging recycling schemes coming forward during the Plan period is uncertain, although the Government is actively promoting the use of secondary aggregates generally (see Para 5.23). Policy M15.1 in the Nottinghamshire Minerals Local Plan forms the basis for assessing future proposals on the re-excavation of dredgings.

## **Other Minerals Waste**

- 5.38 Soils and overburden generated from the extraction of opencast coal, gypsum sand and gravel, Sherwood Sandstone, clay and limestone are generally re-used on-site in reclamation schemes. The planning requirements in relation to these issues are covered in the Minerals Local Plan.

## **RECYCLING POWER STATION WASTE**

### **Furnace Bottom Ash**

- 5.39 All of the estimated 0.5 million tonnes of Furnace Bottom Ash (FBA) produced each year from the four coalfired power stations in Nottinghamshire is recycled as a secondary aggregate, and used mainly in the production of building blocks.
- 5.40 FBA is normally processed through a mobile screening plant for grading into material suitable for use as a secondary aggregate. This is usually carried out within the curtilage of the power station and as such falls within permitted development rights.<sup>8</sup> Outside the power station, planning permission is required in the normal way. Where planning permission is required such proposals will be assessed against Policy M2.2 of the Minerals Local Plan.

### **Pulverised Fuel Ash**

- 5.41 About one third of the estimated 2 million tonnes of Pulverised Fuel Ash (PFA) produced each year in Nottinghamshire is recycled and used to form secondary aggregate. Examples include bulk fill for road construction and the

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<sup>8</sup> *The Town and Country Planning (General Permitted Development) Order 1995, Schedule 2, Part 17, Class G.*

production of building blocks<sup>9</sup>. PFA is also used in cement. In terms of tonnage, this is the most significant recycling of waste material in the County. Its rate of utilisation will depend upon the level of activity in the construction industry.

### Desulphogypsum

- 5.42 The Flue Gas Desulphurisation (FGD) plant at Ratcliffe on Soar Power Station has a potential annual output of up to 500,000 tonnes of desulphogypsum. This compares to an actual output of 220,000 tonnes in 1999<sup>10</sup>. British Gypsum Ltd has agreed to take all this waste which will be processed to make plasterboard at the East Leake plant. Apart from solving a potential major waste disposal problem, the use of desulphogypsum will allow the conservation of the natural gypsum resources at East Leake and other mines.
- 5.43 Research is underway to examine whether desulphogypsum can be recycled to improve the quality of soils used to reclaim opencast coal sites<sup>11</sup>.

### RECYCLING METALS - SCRAPYARDS

- 5.44 In 1992, 6 million tonnes of scrap steel were recovered for sale in the UK and for export (this excludes the steel industry's usage of its own scrap produced in iron and steel making). This total includes the scrap produced from around 2 million obsolete or crashed vehicles, as well as from 6 million units of "white goods" (washing machines, cookers, freezers, refrigerators). Smaller quantities of scrap ferrous metal were recovered from domestic waste at household waste recycling centres, waste transfer stations and material recycling facilities.
- 5.45 In 1992, recovery rates for non-ferrous metals, expressed as a percentage of consumption, were: copper 45%, lead 64%, aluminium 39% and zinc 21%.
- 5.46 These scrap metal wastes are mostly collected through a well established infrastructure, passing from the smaller scrap metal yards to the main dealers. In Nottinghamshire, over 200,000 tonnes of ferrous and non-ferrous metals are recovered each year from an estimated 150 metal recycling facilities. At each stage in the chain, the scrap is sorted to remove high value non-ferrous items and bulked into standard classes of material. Large items are broken down using processes such as cutting, compacting and fragmenting, each producing a particular grade of scrap metal for re-use. Waste residues from scrapyards can contain a wide range of toxic materials which require special controls during disposal.
- 5.47 The main planning issues raised by scrapyards concern their visual impact, pollution risks, noise, dust and traffic. Many scrapyards were established long

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<sup>9</sup> See Nottinghamshire Minerals Local Plan, Chapter 2.

<sup>10</sup> Source: British Geological Survey: UK Mining Statistics.

<sup>11</sup> "Soil Improvements: A Novel Approach", C Rudd, Waste Planning, No. 13.

before planning controls existed and as a result are poorly located and designed. For example, scrapyards have become established in open countryside, the Green Belt and within residential areas. The only suitable locations are industrial estates which can accommodate developments of this character.

- 5.48 Since September 1995, regulations<sup>12</sup> have come into effect which will provide some pollution control over many existing and future scrapyards.
- 5.49 Scrapyards have an important role to play in achieving a sustainable system of waste management. It is therefore essential that adequate facilities are available to recover scrap metal and other waste. Whilst there is little information to assess the adequacy of existing scrapyards, it is likely that scrap metal production will increase as car ownership rises, householders have more 'white goods' and recycling becomes more environmentally and economically attractive. It is therefore quite possible that proposals will be received to extend or modernise existing sites, and possibly to develop new sites.
- 5.50 In order to encourage new scrapyards and existing badly located scrapyards to relocate, Policy W5.10 below identifies 6 employment sites within which this type of development is considered to be appropriate. Proposals outside these areas will also be considered to be suitable in other existing employment sites or those designated within the City and District Council's Local Plans which have similar environmental advantages, such as good access and limited impact on local amenity.

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## **POLICY W5.10**

**PROPOSALS FOR NEW SCRAPYARDS, AND EXTENSIONS TO EXISTING FACILITIES WILL BE PERMITTED IN THE FOLLOWING EMPLOYMENT SITES:**

- (a) FIRBECK;
- (b) BOUGHTON;
- (c) OLD MILL LANE, MANSFIELD;
- (d) COLWICK INDUSTRIAL ESTATE SITE 1;
- (e) COLWICK INDUSTRIAL ESTATE SITE 2;

**PROPOSALS OUTSIDE THESE PREFERRED AREAS WILL ALSO BE PERMITTED IN OTHER EXISTING EMPLOYMENT SITES OR THOSE DESIGNATED IN THE CITY AND DISTRICT COUNCILS' LOCAL PLANS WHERE IT CAN BE DEMONSTRATED THAT THERE IS NO UNACCEPTABLE ENVIRONMENTAL IMPACT.**

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- 5.51 Extensions or changes to existing sites may also be acceptable in suitable employment sites, or where the proposal can ameliorate any existing environmental problems in terms of site location and design. For example,

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<sup>12</sup> Waste Management Licensing Regulations 1994. Certain exemptions may apply.

this may include improved screening measures, or height restrictions on waste stockpiles. Such improvements can be mainly achieved through the use of planning conditions, however, the use of planning obligations may be appropriate in some circumstances (see Para 3.11-3.14 and Policy W3.2).

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## **POLICY W5.11**

**PROPOSALS TO EXTEND OR MODIFY EXISTING SCRAPYARDS WILL ONLY BE PERMITTED WHERE THEY CAN ACHIEVE SIGNIFICANT ENVIRONMENTAL IMPROVEMENTS REGARDING THE APPEARANCE AND OPERATION OF THE WHOLE SITE.**

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### **OTHER RECYCLING FACILITIES IN NOTTINGHAMSHIRE**

#### **Mercury Waste:**

- 5.52 Odin Research and Development operate a facility, situated at Boughton, which specialises in the recovery of mercury from wastes such as dental amalgam and small mercury batteries. The process is essentially one of vacuum distillation. Throughput at the site is currently 20-30 tonnes per year but the maximum sustainable capacity could be double this. Some of the material treated is imported from Europe.

5.53 **Tyres:**

Europa Reclaim Limited in Newark shreds and granulates old tyres. The resulting material is used for the manufacture of artificial sports surfaces, children's playground bases and similar applications. The site is currently recycling about 7,000 tonnes of tyres a year. Further capacity is available which could be utilised for recycling more tyres or shredding them to make them more suitable for landfilling. However, any increase in plant throughput would have to comply with the Environment Agency authorisation. Boynton Brothers at Ranskill also operates a tyre reprocessing plant

#### **Waste Oil:**

- 5.54 Hall and Campey situated at Lenton in Nottingham collects and treats waste oils for use as heating fuel. In 1992/93 the facility reclaimed approximately 6,000 tonnes of oil and has capacity for handling considerably more. Oakwood Fuels at Bilsthorpe also treats waste oils.