1.0 INTRODUCTION

Synopsis

1.1 Waste Recycling Limited (the applicant) is submitting a planning application to Nottinghamshire County Council for the reclamation of land associated with the former Annesley Bentinck Mine, known colloquially as the Bentinck Tip and Void. The applicant has secured control over both the Tip and the Void, together with a strip of land between the Bentinck Site and the A608. For the first time therefore it is possible to put forward proposals for the reclamation of the entire Bentinck Site as envisaged in the adopted Nottinghamshire and Nottingham Waste Local Plan.

1.2 In particular, this planning application seeks permission for:

- The reclamation of around 50 hectares (ha) associated with the Bentinck Tip through the deposit of around 1.5 million cubic metres (Mm^3) of soils and other inert wastes;
- The reclamation of a further 18 ha associated with the Bentinck Void though the landfilling of around 4 Mm^3 of non-hazardous municipal, commercial and industrial wastes;
- Reclamation of some 52 ha of peripheral land within the Tip and Void through the regrading of materials and spreading of soils and/or compost;
- The establishment of a compost maturation facility to handle up to 22,000 tonnes per annum of imported compost;
- The recycling (through crushing and screening) of imported inert wastes and the export off site of recyclable products; and
- The construction of a temporary access road linking the reclamation site to the A608, to the east of Junction 27 of the M1.

1.3 In addition, the planning application includes proposals for ancillary development necessary to support the landfill activities, including weighbridge, office accommodation and environmental management facilities (for the management of landfill gas and leachate). As such, the proposals differ from those previously submitted to Nottinghamshire County Council.

1.4 The proposed development, which is set out in detail in Section 3, seeks to address the requirements of Policy W10.4 of the Adopted Nottinghamshire and Nottingham Waste Local Plan, and in particular the principles set out in Paragraphs 10.51 to 10.56. The development proposals have also been formulated in accordance with the guidelines set out in the scheme[1] prepared by Bowman Planton Associates on behalf of Nottinghamshire County Council.

[1] "Restoration Assessment for Bentinck Tip and Void" Bowman Planton Associates August 2000

1.5 The nature of the proposed development is such that the planning application is accompanied by an Environmental Statement (ES), the purpose of which is to report the findings of the Environmental Impact Assessment (EIA) of the proposed development undertaken between September 2004 and September 2006. The ES is a new, freestanding document, in support of the new Bentinck application (as described in paragraph 1.2 above), and as such it provides a wholly new assessment of the development proposals. In line with best practice, this new ES has considered the previous assessments and reports contained in the 1997 Terry Adams Limited ES, Technical Appendices and Addendum and the 1998 ES and Technical Appendices prepared for Midland Mining Limited[2]. Reports prepared for the original applications considered relevant to the new application are retained for information purposes as background information to the new ES, however, they have been supplemented to include new technical data and assessment.

1.6 This document constitutes a combined Planning Application with supporting statement and an Environmental Statement that has been prepared in accordance with the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999. The Statement provides a description of the site, its planning history and the development proposals, together with an analysis and evaluation of the effects of the development on the human and natural environments. Where potential environmental impacts are identified, mitigation strategies are put forward and residual impacts are assessed. The nature and structure of the ES are set out below in paragraphs 1.23 *et seq*.

The Site

1.7 The application site is situated between the settlements of Selston to the west and Annesley Woodhouse/Kikby Woodhouse to the east, with the B6018 Park Lane lying to the north and Salmon Lane to the south. Both Mansfield and Kirkby in Ashfield lie to the north-east at distances of around 9km and 2km respectively. Whilst located within the county of Nottinghamshire, the Derbyshire boundary lies approximately 5 km to the west.

1.8 The application site extends to some 152 ha, and comprises the former Bentinck Colliery Tip situated to the south of Park Lane, the Bentinck Void located to the north of Salmon Lane, and a strip of land lying adjacent to the M1 within which the proposed access road would be constructed. The Void itself comprises some 26 ha (be it that not all of this area would be landfilled), whilst the Tip and access road comprise 88 ha and 12.5 ha respectively. The remaining areas of the application site comprise peripheral parcels of land which would not be developed, save for the proposed landscaping works to provide the transition between the reclamation works and the surrounding landscape.

[2] Planning Application and Environmental Statement. (MM/BE/HC/1012/02). M J Carter Associates. September 1998

1.9 Section 2 provides further details of the application site and its surroundings, whilst Section 4 describes the site's planning history.

The Proposed Development

1.10 The development proposals seek to reclaim the entire Bentinck Site to an appropriate and beneficial landform, consistent with the character of that surrounding the site, at the earliest opportunity using a combination of imported inert and non-hazardous wastes, together with compost matured on site within a dedicated facility. In so doing, the proposals would remove in perpetuity an incongruous landform that has resulted through the decline of the local coal field, whilst seeking to provide biological/ecological diversity. To achieve this aim, the development comprises several distinct elements, which are interrelated through the delivery of a common objective. These elements are:

- reclamation of the Bentinck Tip over a ten to twelve year period with around 1.5 million cubic metres (Mm^3) of imported inert materials and compost; the latter would be imported from an off-site composting facility and matured on site. Imported inert materials would be sourced from site clearance and demolition works. This material would be screened using mobile plant to separate out any stone, brick and concrete *etc* from the soils/soil forming materials: any screened stone *etc* would be crushed on site using mobile plant to produce secondary aggregates for either use on site for the construction of haul roads or export off site. In so doing, value is gained from the imported material, whilst removing any objects that may impede the restoration quality.
- importation of around 4 Mm^3 of non-hazardous waste materials over a ten to twelve year period sourced from the Mansfield/Ashfield and Greater Nottingham areas, together with south east Derbyshire. These wastes would be deposited in a full containment landfill which would be constructed in accordance with the requirements of the Landfill Regulations 2002. On the completion of filling in each phase the waste would be capped with an impermeable membrane over which restoration soils would be placed.
- establishment of a compost maturation facility. This would comprise a drained concrete pad, upon which would be built a 'dutch barn' type building (*i.e.* an open sided structure). The imported compost would be placed in rows (termed windrows) within the building and periodically turned using specialised equipment. Once matured, the compost would be blended with other materials, such as colliery shale or imported soils/overburden, and used in the restoration layer.
- construction of a 7.3m wide access road, surfaced and drained, linking the landfill site with the A608 to the south so as to avoid the local highway network.

1.11 To support the reclamation works, ancillary developments would be required, including new office accommodation, welfare facilities,

weighbridge infrastructure, waste reception areas and environmental management infrastructure for the management of leachate and landfill gas.

Rationale

1.12 The Bentinck Site has been the subject of previous opencast coal extraction and the tipping of colliery wastes from the former Annesley-Bentinck Mine in accordance with a number of extant planning consents. Tipping of both solid and slurry colliery wastes has been concentrated within the northern section of the application site (the "Bentinck Tip" see Section 2 below), with coal extracted from the southern part of the site (the "Bentinck Void") by opencast methods to create additional void capacity for the deposit of colliery wastes. Following the extraction of the coal, and partial restoration of the Void, the Coal Authority sold the southern section for restoration by landfill. Following the closure of the colliery in c2000, the site has laid derelict and incapable of being beneficially restored without the import of additional fill material.

1.13 The closure of the colliery has limited the restoration possibilities for the site. For geotechnical reasons it is not possible to regrade the tip to any great extent to form a suitable landform, similarly there are insufficient soils to enable the regeneration of the site to a sustainable afteruse. Additional materials therefore need to be imported to facilitate the reclamation of the site.

1.14 The Nottinghamshire and Nottingham Waste Local Plan (WLP) has considered the likely arisings of non-hazardous waste (termed "non-inert" waste in the WLP) up to December 2004 (being the end of the Plan Period) and identified a shortfall in void capacity towards the end of the Plan Period in the Mansfield/Ashfield area. In view of this, the WLP includes a site specific allocation at Bentinck to release 4 Mm^3 of non-inert void. A monitoring report produced by Nottinghamshire County Council in 2004[3] has indicated that permitted landfill void space is being depleted at a greater rate than anticipated in the WLP, which exacerbates the need to identify and release additional void for the deposit of non-hazardous waste. Over the next couple of years two more landfill sites will close in Nottinghamshire. Within neighbouring Derbyshire, a similar situation exists, with only two landfill sites to manage residual wastes, one of which will close in the next 12 months.

1.15 The Bentinck Site lies within the heart of the area where landfill capacity will be depleted. The WLP therefore allocates land at Bentinck for landfill as part of an overall reclamation scheme for the area. The issues at Bentinck are covered in paragraphs 10.39 to 10.56, together with Policy W10.4 of the WLP. Through the WLP policy, the Council has indicated that the way forward for the Bentinck Site is to produce a comprehensive scheme addressing the overall reclamation of both the Tip and the Void. (Refer to Section 4)

[3] Nottinghamshire and Nottingham Waste Local Plan Monitoring Report 2000-2003. September 2004.

The Applicant

1.16 Waste Recycling Limited is a subsidiary of the Waste Recycling Group Ltd (WRG). WRG is one of the UK's leading waste management companies and handles around 15 million tonnes of household, commercial and industrial waste each year. Around 50% of WRG's business is accounted for by waste management contracts with more than 70 local authorities across England, Scotland and Wales.

1.17 The Company operates facilities for the reception, recycling and disposal of waste, including a network of waste transfer and recycling centres and strategically-situated landfill sites, and is one of the largest operators of household waste recycling centres for use by the general public. WRG is a leader in the generation of "green" energy through energy from waste (EfW) incineration, thus helping to reduce the use of fossil fuels and to meet UK climate change commitments.

1.18 WRG has grown considerably since its founding in the early 1980s. In 1994 the Company was floated on the London Stock Exchange and was a member of the FTSE250 Index until July 2003 when the Company was acquired by the private equity investment organisation, Terra Firma Capital Partners Ltd.

1.19 Following the acquisition of the waste disposal and electricity generation business of the Shanks Group by Terra Firma in June 2004, WRG has continued to grow . In the summer of 2006 it was announced that the Group was to be acquired by the Spanish construction and services company, Fomento de Construcciones y Contratas (FCC), with the sale subsequently finalised o 27 September 2006.

1.20 WRG has received accreditation to the ISO14001 environmental standard for its operating sites. This international standard seeks to ensure consistency and high quality in the management of environmental processes, and rigorously examines companies' approach to issues such as the environmental monitoring of sites.

Waste Recycling Group's Environmental Policy

1.21 Waste Recycling Group Ltd is committed to achieving high performance throughout its business. Compliance with all environmental legislation pertinent to its activities is a minimum requirement and an integral part of the Environmental Policy. In addition Waste Recycling Group will:

- pursue continuous improvements in environmental performance and the management system.
- develop and maintain activities to protect and enhance the environment and prevent pollution.
- promote waste recycling and recovery and endeavour to replace the use of non-sustainable natural resources.

- identify environmental risks and use all practical measures to reduce them.
- have an ongoing commitment to informing and educating legitimate interested parties about its activities.
- have an ongoing commitment to develop all company personnel.
- Wherever possible source materials and services locally to minimise transport impacts and support the local economy.
- Work with suppliers to minimise the impact of their operations on the environment.

1.22 Further information on Waste Recycling Group can be found on their website at http://www.wrg.co.uk.

Environmental Impact Assessment

Statutory Background

1.23 The Town and Country Planning (Environmental Impact Assessment) Regulations 1999 (the "1999 Regulations") specify certain types of development for which Environmental Impact Assessment is mandatory (Schedule 1 projects), and categories of development where an EIA may be required (Schedule 2 projects).

1.24 The proposed development does not fall within the requirements for mandatory EIA under Schedule 1 and therefore falls to be considered against Schedule 2. In respect to waste developments, Schedule 2 to the 1999 Regulations indicates that an EIA may be required where:

- "*the disposal is by incineration; or*
- *the area of the development exceeds 0.5 hectare; or,*
- *the installation is to be sited within 100 metres of any controlled waters*"

1.25 Indicative thresholds and criteria are set out in Circular 2/99 for the identification of Schedule 2 developments requiring EIA. The criteria refer to the likelihood of significant effects stating that for waste management facilities, installations (including landfill sites) for the deposit, recovery and/or disposal of household, industrial and/or commercial wastes, an EIA is more likely to be required where new capacity is created to hold more than 50,000 tonnes per year or to hold waste on a site of 10 hectares or more.

1.26 In view of the above criteria, and taking into account the location of the application site within the Green Belt, the applicants are submitting this ES voluntarily, and without recourse to a formal "Screening Opinion".

Content

1.27 Regulation 2(1) and the associated Schedule 4 of the 1999 Regulations sets out the requirements regarding the content of an ES. In particular, it states

that an ES should include descriptions of the likely significant effects, both direct and indirect, of the proposed development on the following:

- population;
- flora;
- fauna;
- soil;
- water;
- air;
- climatic factors;
- the landscape;
- material assets;
- cultural heritage; and,
- the interaction between any of the foregoing.

1.28 Appendices 1 to 10 of the Department of the Environment, Transport and the Regions "*Good Practice Guide for the Preparation of Environmental Statements for Planning Projects*"[4] structure the legal requirements of the Regulations as follows:-

- human beings (population changes, changes in the consumption of housing or services);
- noise and vibration;
- traffic and transport;
- land use;
- flora and fauna (ecology);
- soil, geology and hydrogeology;
- water (hydrology);
- air and climate;
- landscape; and
- cultural heritage/material assets.

1.29 Although this guidance relates to the superseded 1988 EIA Regulations, it is still referred to on the ODPM website[5] and thus it is considered that it remains a valid source of basic good practice advice within the context of the UK Town and Country Planning system. More recent guidance is provided in the Government Circular 02/99 "*Environmental Impact Assessment*" which accompanies the 1999 Regulations.

[4] Preparation of Environmental Statements for Planning Projects that Require Environmental Assessment: A Good Practice Guide. DETR 1998
[5] http://www.odpm.gov.uk/index.asp?id=1143274

Scoping

1.30 The 1999 Regulations require all environmental considerations to be addressed, even if the development proposals would not have any impact on a particular issue. At the same time, the 1999 Regulations and associated guidance need to be capable of being applied to all forms of development, and not purely waste management developments. Each development proposal, by virtue of its particular setting, geology *etc*., is unique: the potential impacts associated with one site may not be the same as the next. Consequently, it is not always necessary to address all the areas identified above in the same amount of detail. It is therefore important to clearly identify the main environmental issues, as this allows for more detailed and targeted assessment to be carried out.

1.31 By virtue of Regulation 10 of the 1999 Regulations, the planning authority has a duty, if requested, to give their opinion (known as a "Scoping Opinion") in writing to the Applicant on the information to be provided in the ES. The purpose of a "scoping" exercise is to:

- focus the EIA on the environmental issues and potential impacts which need the most thorough attention;
- identify those which are unlikely to need detailed study; and
- provide a means to discuss methods of impact assessment and reach agreement on the most appropriate.

1.32 Although not legally required by the 1999 Regulations, scoping is an important facet of EIA. Paragraph 2.2 of the Department of Environment's Good Practice Guide 24[3] states:

"*Defining its scope is one of the most critical parts of an EIA in that it sets the context for what follows. If the scope is defined too narrowly, some critical area of uncertainty or adverse impact may emerge late in the day. Decisions on the shape of the project may then be too far advanced to allow for any real change. On the other hand, if the scope of work is too loosely defined, then much time, effort and cost may be spent on pursuing unnecessary detail.*"

1.33 Consequently, in accordance with the provisions of Regulation 10 *ibid*, a request for a formal scoping opinion was made by SLR on 12 October 2004. This request set out sufficient details of the application site and the proposed development to enable consultees to consider the proposed scheme. Following a period of consultation, Nottinghamshire County Council provided its "Scoping Opinion" on 17 November 2004.

1.34 The EIA and attendant ES, have therefore been prepared having regard to the Councils scoping opinion, SLRs experience in carrying out EIAs, together with guidance provided by Government Circular 02/99 "*Environmental Impact Assessment*" and the DETR Good Practice Guide 24 "*Environmental Impact Assessment: A Guide for Procedures*". In addition, the

assessments of environmental effects (see Sections 7.0 to 16.0) have been undertaken using guidance and professional standards relevant to the individual topic area, and are separately referenced in the appropriate Section.

Assessment Procedures

Time Scale

1.35 The EIA has identified a range of potential environmental issues, many of which vary in terms of the length of time they are significant. The key time frames can be identified as being:

Short term	Typically being within the first three years of the development, and comprising *inter alia* initial site development and landscaping works and construction of site infrastructure
Medium Term	This would cover the proposed landfill development, covering a period of around ten to fifteen years.
Long Term	Following the cessation of landfill operations and restoration of the application site. Landfill gas and leachate would continue to be generated from the non-hazardous landfill, and would be monitored and managed until such time as the waste mass becomes stable.

1.36 Identified effects can be temporary or permanent; direct or indirect; and positive or negative.

Effects

Temporary/Permanent Effects

1.37 In relation to the different time frames identified above, and in particular to the phased development of the site, some of the effects would be temporary, for example the creation of temporary screening mounds, operational noise and traffic, whilst others would be permanent, such as the impact on landscape.

Direct/Indirect Effects

1.38 The proposed development would have direct effects upon nearby properties and settlements, together with the environment as a whole in relation to emissions of noise, dust, odour, as well as the changing appearance of the site. Indirect impacts can also occur, such as those relating to the transportation of waste.

Positive/Negative Effects

1.39 The proposed development would generate both negative effects and positive benefits, either by the virtue of the proposals themselves (*e.g.* restoration) or as a result of the mitigation measures proposed.

Cumulative Impact

1.40 Cumulative impacts can be described[6] as being those impacts caused by the sum of the projects impacts on the environment component, and/or the projects impacts when added to those of other past, present or future projects. Cumulative impacts can be:

- Additive, aggregative or "nibbling", namely the simple sum of all of the impacts;
- Synergistic, where impacts interact to produce an impact greater than the sum of the individual impact; and
- Neutralising or antagonistic impact, where the impacts counteract each other, reducing the overall impact.

1.41 Whilst individual environmental impacts, such as noise or agriculture, have been considered in individual sections of this ES, there is the potential for one environmental subject area to impact upon another, leading to a commutative impact.

1.42 Such cumulative impacts have been addressed in each of the respective sections within this ES. However there is also the potential for unrelated impacts, which in themselves are not significant, to collectively generate an overall impact that is unacceptable. For example the sum of minor impacts on noise, odour and traffic could collectively produce a significant overall impact. The various impacts assessed within this ES have been considered collectively and it is concluded that no significant cumulative impact would arise.

Depth of Assessment

1.43 A formal scoping exercise has been conducted as part of the EIA process; details of which are set out in paragraphs 1.30 above. In preparing their scoping opinion Nottinghamshire County Council has carefully scrutinised the proposals and considered the likely impacts, based on their experience and the judgement of consultees. The depth in which the various assessments have been conducted is based on the Councils scoping opinion, together with SLR's extensive experience of similar projects. At the same time regard has been given to the guidance contained in Planning Policy Statement 23 in relation to the requirements of the PPC regime (refer to paragraph 1.48 *et seq* below).

[6] Methods of Environmental Impact Assessment. P Morris and R Therivel. UCL Press 2000

1.44 A fundamental aspect of any EIA is to determine the baseline environmental conditions prevailing at the application site. These form the benchmark against which predicted changes resultant from the development can be assessed to determine the magnitude of any impact. The baseline conditions have been determined by a number of different methods, including desktop studies, site surveys, use of analytical models and the acquisition of data from third parties.

1.45 Methodologies for predicting the nature and magnitude of any potential environmental impacts vary according to subject area. Quantitative methods of assessment can predict values which can be compared against published thresholds and indicative criteria contained in Government guidance and standards. It is not always possible though to ascribe values to environmental assessments, and thus qualitative assessments are used: such assessments rely on previous experience and professional judgement.

1.46 Finally, if significant environmental impacts are predicted in the EIA process, then the ES provides measures which would be employed to eliminate or ameliorate the impact to acceptable levels. Mitigation measures can be in the form of changes to operational practice, or changes/additions to the design of the facility. Accordingly, the EIA process forms part of the iterative design process.

Technical Difficulties

1.47 In general, no technical difficulties were encountered when undertaking the EIA. In considering the potential impacts of the proposals on nearby properties, it should be noted that observations and measurements were generally made from public areas (such as rights of way and highways). It is considered that this has not prevented the accurate assessment of potential environmental impacts or the identification of appropriate mitigation measures.

Planning and Waste Management

1.48 In recent years, the Integrated Pollution Prevention Control Directive (96/61/EC) has changed the way waste management facilities are licensed by the EA.

1.49 All landfill sites will need to operate under a Pollution Prevention and Control (PPC) permit. For a new landfill site, a PPC permit can only be issued after planning permission has been granted. A PPC permit will contain a number of conditions intended to regulate the day to day management of the site with the aim of minimising the effect of the operation on the environment; it will also contain conditions regulating site management and monitoring.

1.50 Planning Policy Statement 10 "*Planning for Sustainable Waste Management*" (2005) and Planning Policy Statement 23 "*Planning and Pollution Control*" (2004) both consider the interaction between the planning and licensing

regimes. They give advice on the relationship between the different planning development and pollution control regimes. The planning and pollution control systems are both designed to protect the environment from the potential harm caused by development and operations and therefore complement each other.

1.51 Paragraph 1.9 of Annex 1 to PPS23 states that *"waste planning matters are dealt with in PPG10 which is currently under review"*. At paragraphs 2 and 10 of PPS23, (and paragraph 27 of PPS10) it is stated that the planning and pollution control systems are separate but complementary in that both are designed to protect the environment from the potential harm caused by development and operations, but with different objectives. In recent years, increasing awareness of environmental priorities has led local planning authorities to take a greater interest in controlling potentially polluting activities. Yet, at the same time, the effectiveness and scope of environmental protection legislation has expanded rapidly. Paragraph 2 of PPS23 also provides that the planning system should not operate so as to duplicate controls which are the statutory responsibility of other bodies (including local authorities in their non-planning functions). The role of the planning system focuses on whether the development itself is an acceptable use of the land rather than the control of the processes or substances themselves. It also assumes that the pollution control regime will operate effectively. Planning controls are therefore not an appropriate means of regulating the detailed characteristics of potentially polluting activities.

Project Team

1.52 This ES has been prepared by SLR Consulting Limited (SLR). SLR is a multi-disciplinary environmental consultant to the minerals and waste management industries, and also provides advice to local authorities and the Environment Agency on strategic issues[7]. SLR is a registered Environmental Impact Assessor Member of the Institute of Environmental Management and Assessment (IEMA).

1.53 In preparing this planning application and ES, SLR has drawn upon the expertise of an in-house team of specialists comprising planners, surveyors, engineers, environmental scientists, hydrogeologists and landscape architects for the majority of the technical assessments. SLR has worked closely with the management teams and technical staff of Waste Recycling Limited, in a detailed and iterative process, to ensure that the working scheme is feasible as well as optimising environmental protection.

1.54 In undertaking the EIA, SLR has also referred to a number of reports prepared by a number of organisations on behalf of Viridor Waste Management, in particular:

- Symonds Travers Morgan – planning, traffic, highways.

[7] Further details regarding SLR Consulting Limited can be found on its web site www.slrconsulting.co.uk

- Marcus Hodges Environment – geology, hydrogeology and landfill engineering.
- Donaldson Edwards Partnership – landscape, visual assessment, restoration strategy and land use proposals.
- Rick Bright and Associates – further landscape and visual assessment work.
- ADAS Wildlife Unit – ecology, soils and agriculture.
- AERC Limited – further ecology and mitigation.
- Vibrock – noise, vibration, air quality.
- Clean Rivers Trust – water quality and quantity.
- Gifford and Partners – culvert design.
- Montgomery Watson – further culvert design.
- H B Boring and Company – borehole investigation.
- IMC Consultants Limited – ground stability.
- Cambridge Laboratory – water quality analysis.