

Report No. SG1001/1
Date: December 2009

RECYCLING AND ENERGY RECOVERY FACILITY
DOVESDALE FARM, CARLISLE ROAD, STONEHOUSE
SOUTH LANARKSHIRE

SCOPING REPORT
Incorporating the Proposal of Application Notice

Prepared for



Prepared by



Stratus Environmental Ltd
4245 Park Approach
Thorpe Park
Leeds LS15 8GB

**Project Quality Assurance
Information Sheet**

***Environmental Statement – Scoping Report
Proposed Recycling and Energy Recovery Facility at Dovesdale Farm, Stonehouse***

Report Number : SG1001/1 ***Report Status*** : Submission

Report Date : December 2009

Prepared for : Scotgen Ltd
Dargavel Store off Lockerbie Road
Dumfries
Scotland
DG1 3PG

Issued by : Stratus Environmental Limited
4245 Park Approach
Thorpe Park
LEEDS
LS15 8GB

Prepared by:

James Cook
Senior Development Planner

Approved by:

Nick Davies
Managing Director

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SG1001/2/02	Proposed Layout
SG1001/2/03	Proposed Elevations

APPENDICES

APPENDIX	TITLE
Appendix A	Proposal of Application Notice

1.0 INTRODUCTION

- 1.1 Each year Scotland generates over 16.2 million tonnes of waste from commercial, industrial, construction and demolition sectors, the majority of this ends up in landfill. Once in landfill the materials are lost forever and the biodegradable element release a potent greenhouse gases (methane) to atmosphere. As the UK has continued with this unsustainable approach to waste management the amount of available landfill capacity is rapidly running out. Furthermore, the historic dependence on fossil fuel for energy production has made significant contribution to potentially damaging carbon emissions.
- 1.2 Scotgen Limited (the applicant) believes that a range of technologies need to be deployed to address these challenges. The applicant intends to submit a planning application to South Lanarkshire Council under the Town and Country Planning (Scotland) Act 1997 as amended by the Planning etc (Scotland) Act 2006 for a Recycling and Energy Recovery Facility on land at Dovesdale Farm, Stonehouse. This document has been prepared to assist South Lanarkshire Council in the adoption of a formal Scoping Opinion.
- 1.3 This document provides an outline of the development proposals, describes the key issues relevant to the site and sets out the extent of work to be undertaken in respect of carrying out an Environmental Impact Assessment (EIA).
- 1.4 This facility will create value by recycling waste material and providing an alternative disposal outlet for residual waste, which will be used to generate low carbon renewable energy for use in the Local Grid or the future development of Dovesdale Farm. This development will contribute towards the sustainable waste management infrastructure which is required both nationally, and at a local level, to increase the reuse and recycling of waste materials, and to assist in diverting residual waste materials from traditional unsustainable waste disposal methods.
- 1.5 The proposed facility will consist of an Energy Recovery Facility (ERF) using gasification technology with a capacity of 60,000 tonnes per annum, and a Materials Recycling Facility (MRF), with a processing capacity of approximately 40,000 tonnes of waste materials per annum. A Combined Heat and Power (CHP) unit will be provided as part of the process which will enable the production and exportation of up to approximately 7 MWe of low carbon renewable electricity to the Local Grid, and, or up to 17MWt of heat to surrounding users.
- 1.6 The facility will be developed on land located to the east of Dovesdale Farm, immediately to the south of the quarry access road and to the west of Carlisle Road (B7978).

Purpose of the Scoping Report

1.7 The main aim of this report is to request a formal scoping opinion from the local planning authority. The objectives of the scoping report are to:

- define the Environmental Statement (ES) which will accompany the planning application;
- anticipate and so allow potentially adverse environmental impacts to be considered at an early stage;
- define methodologies to be used in the EIA process to assess the effects of the proposal; and
- engage relevant Stakeholders at an early stage of the proposals to enable contribution of relevant information;

1.8 It is considered that the proposed development is a project which is classified as a 'Schedule 1 development', as defined in paragraphs 9 and 10 of The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 1999, ('EIA Regulations'). Paragraphs 9 and 10 set out the description of development for Schedule 1 Projects.

"9. Waste disposal installations for the incineration, chemical treatment (as defined in Annex IIA to Council Directive 75/442/EEC[38] under heading D9), or landfill of hazardous waste (that is to say, waste to which Council Directive 91/689/EEC[39] applies

10. Waste disposal installations for the incineration or chemical treatment (as defined in Annex IIA to Council Directive 75/442/EEC under heading D9) of non-hazardous waste with a capacity exceeding 100 tonnes per day."

Schedule 1 Projects are described as;

"...projects, for which EIA is required in every case."

1.9 In accordance with the EIA Regulations, the site has been identified by means of location plan, proposed conceptual site layout and a summary of the proposal. In addition, the nature and purpose of the development is also described below.

1.10 This report has been prepared in the light of the following legislation:

- The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 1999 ('the EIA Regulations');
- The National Planning Framework;
- Scottish Planning Policy and National Planning Policy Guidelines; and
- Strategic and Local Development Plans.

Scope and Format of Environmental Impact Assessment

- 1.11 This report does not seek to assess the environmental effects of the proposed development. Rather, in accordance with the EIA Regulations, this report provides information on the development and the anticipated significant effects which may need to be considered and assessed. As required by the EIA Regulations, it sets out the proposed format and information which will be included in the ES to accompany the planning application. The scope will be amended as appropriate based upon comments received from South Lanarkshire Council, other organisations and the public to which this document is circulated.
- 1.12 The proposed development is classified as a *sui generis* land-use and would require a Change of Use. Given the 'green field' nature of the proposal site and as the development is a 'Schedule 1' (EIA) project, a full planning application will be submitted.
- 1.13 The ES which will accompany the application will include a detailed explanation of the proposed facility, including such matters as how and when it will operate, how the waste is processed and treated, and the products which will be recovered as a result of the operations. Detailed drawings will also be provided illustrating the different elements of the proposal.
- 1.14 The EIA and resultant ES will be undertaken and prepared consistent with the EIA Regulations. Circular 8/2007 (as amended), which provides advice on the implementation of the EIA Regulations, summarises the information to be included in an ES. In short, the information comprises:
- A description of the development;
 - An outline of the main alternatives to the development;
 - A description of the aspects of the environment likely to be significantly affected by the development; and
 - A description of measures to prevent, reduce and where possible offset, any significant effects of the proposed development.

Information will be gathered for each environmental topic studied. This is to ensure that a comprehensive technical assessment of the potentially significant effects of the proposed development is undertaken.

- 1.15 Each of the technical assessments will consider:
- **Context:** This sets out the relevance of each environmental topic in both planning and technical terms, including an explanation of the terminology to be used;

- **Assessment Approach:** This includes details of the initial data gathering undertaken for the scoping exercise and how this has influenced the scope of the assessment and the selection of potentially sensitive receptors;
- **Assessment of Effects:** This outlines how data has been collected and the method used to identify any potentially significant effects. It describes baseline environmental conditions relating to the environmental topic. It concludes by predicting the effects of the proposed development and their significance;
- **Proposed Mitigation:** This outlines the measures that have been incorporated into the proposed development to mitigate potential significant effect;
- **Summary of predicted Effects:** This brings all of the effects, both adverse (negative) and beneficial (positive) together in tabular form and summarises the findings using defined and consistently applied criteria; and
- **Implementation of Mitigation:** This section concludes the assessment by summarising the mitigation measures that will form part of the development proposals and who will be responsible for their implementation. It also states how measures will be monitored.

1.16 The required information will be incorporated into an Environmental Statement and submitted as the following Documents:

- ES Volume 1 – Environmental Statement
- ES Volume 2 – Appendices and Annexes of Plans and Photographs
- Non-Technical Summary

Environmental Statement – Volume 1

1.17 The first chapters will outline the main characteristics of the site and sets out the proposed development in the context of the surroundings and nature of the existing site. An introduction will outline the proposed planning application, methodology and scope of the ES.

1.18 Schedule 4 of the Environmental Impact Assessment Regulations 1999 (Scotland), requires a description of the likely significant impacts, direct and indirect, on the environment, explained by reference to its possible impact on:

Population;
Fauna;
Flora;
Soil;
Water;
Air;
Climate;
Material assets;

Heritage;
 Landscape;
 Recreation; and
 The inter-action between any of the foregoing.

1.19 For the purposes of the ES, these aspects, where relevant to the application site and the proposals, have been grouped into 10 topic studies as set out below under 'Environmental Subject Areas'.

1.20 Accordingly, **Volume 1 - Environmental Statement**, will be presented in the following format:

A. Background	
1. Introduction	Proposed Planning Application Purpose of ES Content of ES Methodology and Consultation Scope of ES
2. The Site	Site and Environs Topography and Landscape Site Access Existing Uses and Buildings Ground Conditions
3. The Development	Introduction Background Project Description including construction and operational phases Concept Masterplan
4. Planning Policy	National Planning Framework Scottish Planning Policy/National Planning Policy Guidelines Strategic and Local Development Plans
B. Environmental Subject Area	
5. Land Use	
6. Landscape and Visual Impact	
7. Ecology	
8. Traffic and Transportation	
9. Contamination, Soils and Geology	
10. Water and Hydrology	
11. Noise and Vibration	
12. Air Quality	
13. Social and Community	
14. Natural and Community Heritage	
15. Summary of Interactions and Cumulative Impact	

Environmental Statement – Volume 2

- 1.21 Each subject consideration will be supported, where necessary, by background reports that will form appendices to the main ES document in Volume 1.

Non-Technical Summary

- 1.22 The NTS provides information about the proposal and its likely environmental effects. It is written for the non-specialist reader and provides an overview of the Environmental Impact Assessment. It is proposed that the NTS adopts the following format:

- Summary
- Introduction
- Site and Surroundings
- Descriptions and Proposals
- Summary of main topic areas and predicted environmental effect
- Summary and Conclusions.

2.0 SITE AND SURROUNDINGS

- 2.1 The site is situated on a level 'green field' plot, rectangular in shape measuring approximately 4.9 ha and is located off Carlisle Road (B7078). The centre of the site is at circa 180m AOD, is currently used for grazing and is enclosed by a post and wire fence. The site is approximately 2km to the south east of Stonehouse. Access from the M74 Motorway is taken from junction 8 approximately 2 km to the north of the site.
- 2.2 Current site access is through a field gate located in the northern boundary fence line. This leads to a private road which provides access between Dovesdale Farm and Carlisle Road (B7078). Access to the wider highway network is via Carlisle Road which runs in a North to South alignment. The B7078 connects to the A71 to the north near to junction 8 of the M74 Motorway. To the south, Carlisle Road leads to Blackwood and Kirkmuirhill.
- 2.3 The site is bound to the north by the private road and to the east by Carlisle Road. The western and southern boundaries adjoin grazing land. On the opposite side of the private road is a communications mast, further to the north is a continuation of grazing land and 3 No wind turbines. To the south, again, is grazing land. Running parallel to Carlisle Road is the M74 Motorway beyond which is Cander Moss, a local nature reserve. To the west, beyond two grazing fields is Dovesdale Farm. At present, on land associated with the farm is a haulage business centre (an operational building and associated lorry and car parking area), together with a former quarry which is currently being infilled with inert material. The operations also include recycling facilities for certain types of waste material.
- 2.4 In terms of the local topography the proposal site sits on highground in a relatively prominent location. The land rises gently to the south east to height of 192m AOD, however, land falls to the west of the site to a low point of circa 145m AOD at the former landfill.
- 2.5 The South Lanarkshire Local Plan identifies the proposal site as greenbelt land.
- 2.6 A site location plan (drawing SG1001/2/01) is attached to this document.

3.0 DEVELOPMENT PROPOSALS

3.1 The proposals described in this section are put forward on a preliminary basis for the purpose of this scoping document. They are subject to modification in light of further surveys and consultations, as referred to in this report.

3.2 The proposal will be contained within a single building (drawing No. SG1001/2/02) measuring approximately 200 metres by 85 metres by 14 metres high (ridgeline) and will comprise the following principal elements:

- A **Materials Recycling Facility (MRF)**; for the segregating and sorting of recyclable materials (paper, plastics, cardboard, metals) from waste materials, comprising a reception area, feed hopper, conveyors, picking station, ferrous/non-ferrous metals separator, baler and recyclate storage area.
- An **Energy Recovery Facility (ERF)**; comprising a reception area for waste storage, 3 streams of primary gasification chambers, secondary chambers, conveyor/storage area for ash removal, flue gas treatment equipment, power generation area (combine and heat power unit/turbine).
- Administration Office which will form part of the building and associated parking.

The following structures are proposed external to the building:

- Flue stack (25+m), cooling module, flue gas treatment equipment ;
- No.2 weighbridges;
- Ancillary utility infrastructure; and
- Water storage area, hard surfacing and landscape.

3.3 The above principal elements are broadly illustrated on the layout drawing, (Drawing No. SG1001/2/02) which accompanies this report. However elements of this proposal are at preliminary stage pending further consideration of the design strategy and EIA process.

3.4 The facility will have a total capacity to accept and process approximately 100,000 tonnes of waste per annum. This tonnage will be split with circa 40,000 tonnes going for sorting in the MRF and 60,000 tonnes of residual waste being used for energy recovery in the ERF.

3.5 The facility is seeking to recycle and generate energy from predominantly industrial and commercial wastes although municipal solid wastes and a limited range of hazardous waste material may be accepted. Materials to be sorted are likely to come from commercial waste collections etc that will primarily contain packaging that can be recycled. Waste that will be delivered directly to the Energy

Generation Facility will be material that has already been sorted e.g. from other waste transfer stations/MRF's.

- 3.6 Incoming waste materials, recyclates segregated for removal off-site and any residual material required to be removed for alternative waste disposal treatment (i.e. materials unsuitable for energy generation and waste by-products from this process) will be transported by road vehicles. On arrival at the site, vehicles will be weighed and recorded, and directed to the relevant area of the building for unloading. All HGVs will also be required to be weighed on departure from the site. All unloading activities, storage of waste materials and recyclates, recycling/sorting and energy generation processes will be undertaken inside the building.
- 3.7 As a significant amount of heat/steam will be generated from the gasification process a Combined Heat and Power (CHP) unit will be provided as part of the proposal. This will enable the production and exportation of up to approximately 7MWe of low carbon renewable electricity to the Local Grid, and, or up to 17MWt to adjacent developments. 7MWe is sufficient to service the annual requirements of approximately 16,000 households.

Materials Recycling Facility (MRF)

- 3.8 Waste to be sorted/recycled will be delivered to the MRF where recyclable waste materials will be segregated out into separate fractions of material such as plastic packaging and containers, paper, wood, metals, cardboard, glass etc. and then a final residue that cannot be recycled. The residual waste will be transported across to the energy generation area within the building and deposited into bays ready for loading into the primary chambers and final treatment. The sorted fractions of the recyclate will be collected and baled inside the building where required, and stored internally ready for onward removal to reprocessors and recyclers.
- 3.9 The exact machinery to be installed in the building is currently under consideration. Scotgen Ltd has been investigating operational facilities to identify the most appropriate and up-to-date equipment to be included within the facility. Outline details of the MRF process are given in the following paragraphs which assume both mechanical and manual sorting operations.
- 3.10 Waste material will be push onto an in-floor conveyor which will then travel up to the pick station. The materials will be conveyed through either mechanical or manual sorting cabin where plastics, paper etc will be manually picked from the conveyor belt and dropped down chutes into specific containers located below.
- 3.11 Metals will be separated from the waste material by over-band magnet, which will extract ferrous items. Non-ferrous materials will be extracted by eddy current separators. Additional equipment may be installed to ensure that any paper that

may contaminate either the cans or plastic lines will be removed by an “air-knife” and ducting system which will return the paper to the mixed paper conveyor. Both types of metals will be accumulated in 40 cu yd containers where they will be compacted to maximise payload.

- 3.12 Similarly, plastic containers may be sorted into HDPE and PET types by an automatic infra-red sensor which will recognise the type for which it is programmed, and activate a precisely aimed jet of air to eject it into the appropriate line.
- 3.13 Recycled materials will be store in either bays, enclosed containers or mesh cages. A baler will be installed in the MRF to compact paper, plastics, cardboard and metals into high-density bales for ease of handling and storage, and efficient transportation.

The Energy Recovery Facility (ERF)

- 3.14 The energy value of waste materials which can not be recycled will be recovered in order to generate low carbon renewable energy.
- 3.15 The process chosen for the advanced thermal treatment is a sequencing batch oxidisation gasification (BOS) system, utilising individual 15 tonne primary gasification chambers in a parallel stream of 4 units; each stream will serve one secondary combustion chamber and is capable of processing 20,000 tonnes per annum. Three streams will be housed in the building to make up the 60,000 tonne capacity.
- 3.16 The primary gasification chambers are top loaded using conventional equipment with telescopic handling capability. The waste will not require any pre-treatment or processing, and each chamber requires a 24hr period to achieve loading, gasification, energy generation, cool down and ash removal. The gasification plant will operate on 24 hour – 7 day cycle.
- 3.17 Waste will be placed in sealed gasification chambers and gasified under conditions where the oxygen supply is restricted, resulting in incomplete combustion. A gas is given off which is called synthesis gas (syngas). The syngas is then combusted in a secondary combustion chamber.
- 3.18 Heat is generated from the secondary chamber which is carried by the exhaust gas through a boiler, where steam is generated. The steam is used to drive a turbine, which in turn drives a generator allowing production of electricity. If necessary, heat from the secondary chamber can be diverted to external sources. The heating and power requirements of all the facility will be provided by the energy recovery activities on site.

- 3.19 The plant will use flue gas cleaning equipment, employing the Best Available Technology (BAT) to reduce air emissions to as low as a level possible, and in compliance with the European Waste Incineration Directive 2000 (WID), and the requirements of the Pollution and Prevention Control Act 1999.
- 3.20 WID seeks to achieve high levels of environmental and human health protection by requiring the setting and maintaining of stringent operational conditions, technical requirements and emission limit values for plants incinerating and co-incinerating waste throughout the European Community. The facility will comply with WID.
- 3.21 Cooled combustion gases are drawn through a highly efficient fabric filter unit by a fan, contaminants such as nitrogen oxides, acid gases, metals and dioxins and dust are removed from exhaust gases as far as is possible before the exhaust gases are emitted to air via a stack. Reagents such as sodium bicarbonate are injected into the exhaust gases upstream of the filters to neutralise emissions to atmosphere.
- 3.22 Emissions to air are monitored continuously by an automatic computerised system which is designed and calibrated according to strict standards. Each flue gas cleaning plant will be provided with a continuous emissions monitoring systems (CEMS) unit that will measure the components in the flue gas.
- 3.23 Monitoring will also be undertaken regularly for odour, dust and litter at the boundary of the site. As all operations are to be carried out inside the building, it is unlikely that there will be occurrences of this nature. Remedial action will be carried out where the impact of odour, dust or litter is likely to cause nuisance or risk to the environment.
- 3.24 The main solid waste from the gasification process is bottom ash from the primary gasification chambers, the volume reduction from input waste material to ash production is in the order of some 95%. The ash contains contaminants in low amounts and will be collected in skips, and then sent to a specialist facility for reuse or reprocessing. Other solid wastes result from treatment of the exhaust gases to remove contaminants. These wastes (known as fly ash) will be stored inside the building in sealed bags before dispatch to a specialist waste management facility for reuse or reprocessing before final disposal.

Hours of Operation

- 3.25 It is proposed that the energy recovery facility would be operational over 3 shifts, operating **24 hours a day, 7 days a week**, although direct waste deliveries to the building will be restricted to:

Delivery Hours

Monday to Friday	0700 hours to 1800 hours
Saturday	0700 hours to 1300 hours

- 3.27 Outside of these times, there may be a need to carry out essential maintenance on mobile or fixed plant, or further sorting/recycling activities, prior notification would be given to the Local Authority for such activities.

Traffic

- 3.28 Collectively, the combined operations of the facility will give rise to approximately 27 HGVs arriving and departing each day (54 vehicle movements), with the majority of movements occurring throughout a full working day. There will be additional traffic movements associated with the private cars of staff and visitors to the facility.

Ancillary Development

- 3.29 Atmospheric emissions from the EGF will be directed through a flue gas duct into a stack which will be approximately 25m in height. Air dispersion modelling will be carried out as part of the assessment in order to confirm the stack height.
- 3.30 Ancillary equipment associated with the air cooling operations for the gasification and energy generation activities will be located external of the building along the western elevation.
- 3.31 A new and electricity substation will be provided in order to accommodate the necessary equipment required for the transmission of power supplies.

Employment

- 3.32 The facility will result in approximately 40 new employment positions being created, comprising operator shift staff, maintenance employees, weighbridge operators, clerical and administrative staff and facility management staff. The following table provides a breakdown of the typical employment structure for the facility.

Job Description	No. per Shift	No. of Shifts	Total
General Manager	1	1	1
MRF Manager	1	1	1
ERF Manager	1	1	1
Administration Manager	1	1	1
Administrator	1	1	1
Weighbridge Operator	1	1	1
MRF Shift Supervisors	1	2	2
MRF Operatives	6	2	12
Fork Truck Driver	1	2	2
Baler Operative	1	2	2
ERF Supervisor	1	3	3
ERF Supervisor	1	3	3
ERF Operatives	1	3	3
ERF Loader	1	3	3
Waste Advisors	5	1	5
Total			41

Lighting

- 3.33 Lighting design for the building will be based on the use of appropriate lighting to provide safe working conditions in all areas of the site, whilst minimising light pollution and the visual impact on the local environment.

Site Security

- 3.34 The perimeter of the site will be fenced with 2.4 metre high security fencing.

Office and Welfare Facilities

- 3.35 Welfare facilities will be provided for employees within the building. A parking area for cars, motorcycles and cycles will also be provided along the northern elevation.

Surface Water Management

- 3.36 The proposed development will alter the existing surface water management regime for the site. A sustainable urban drainage system will be designed and provided for the site to enable ensure controlled management and discharge of surface water run-off.

Landscaping

- 3.37 A scheme of landscaping will be included as part of the proposal. The design will be sympathetic to the local landscape character.

4.0 POLICY CONTEXT

4.1 The proposed development will be appraised in the light of the relevant European, national, regional and local planning and waste management policies. Policy documents reviewed will include relevant Directives, primary and secondary legislation, national strategies, National Planning Framework, Scottish Planning Policy/National Planning Policy Guidelines and guidance together with the Strategic Development Plans and Local Development Plans.

4.2 A comprehensive assessment of relevant legislation and policy will be provided in the relevant chapter of the ES. An assessment of need for the development will also be undertaken and presented.

European Context

4.3 The proposals will be reviewed and assessed against the following European Directives.

- European Waste Framework Directive (75/442/EEC, amended by Directives 91/156, 91/692 and 96/350)
- EC Directive on Integrated Pollution Prevention and Control (IPPC) (96/611EC)
- EC Directive on Waste Incineration (2000/76/EC)

National Context

4.4 The proposal will be reviewed and assessed against the relevant objectives and policies of the following documents:

- The Consolidated SPP
- SPP6 – Renewable Energy
- SPP7 – Planning and Flooding
- SPP10 – Planning for Waste Management
- NPPG14 – Natural Heritage
- SPP15 – Planning for Rural Development
- SPP17 – Planning for Transport
- SPP20 – Role of Architecture and Design Scotland
- SPP21 – Green Belts
- SPP23 – Planning and the Historic Environment

4.5 The following documents are also of relevance and shall be considered:

- National Waste Strategy (2006)
- Scotland's Renewable Energy Strategy (2003)
- Planning Advice Note 63 (PAN 63) Waste Management Planning

- Scotland's Zero Waste Plan (Consultation Draft 2009)

Strategic Context

- 4.6 South Lanarkshire Council is part of the Glasgow and the Clyde Valley Strategic Development Plan Authority (SDPA). The Structure Plan provides a framework of strategic policies for the long term planning and development of the area and provides a link across council boundaries to the national planning scene.
- 4.7 To reflect the Planning etc (Scotland) Act 2006 which introduced changes to the planning system in Scotland the SDPA decided to prepare its first Strategic Development Plan to replace the former Glasgow and the Clyde Valley Joint Structure Plan 2006 which was approved by Scottish Ministers and became operative in April 2008. It is anticipated that the new SDP will be approved in the later part of 2012.
- 4.8 The Nation Waste Strategy (referenced above) was adopted by the Scottish Executive as the principal mechanism to develop sustainable waste management across Scotland. To delivery this 11 Waste Area Strategy Groups were set up which had the responsibility of preparing Waste Area Plans. The Glasgow and Clyde Valley Area Waste Plan became operative in 2003.
- 4.9 The key aim of the Area Waste Plan is to:

"Contribute to the sustainable development of the Glasgow and Clyde Valley area by developing waste management systems that will control waste generation, reduce the environmental impacts of waste production, improve resource efficiency, stimulate investment and maximise the economic opportunities arising from waste".

Local Context

South Lanarkshire Local Plan (March 2009)

- 4.10 The Plan is a land use strategy for the District and is the prime consideration when the Council makes decisions on planning applications. It includes policies to guide development and proposals for the use of land. The Local Plan also identifies a number of policies relating to waste management and renewable energy.
- 4.11 Relevant to waste and energy developments, the Local Plan sets out the Council's spatial strategy for dealing with waste and encouraging the production of renewable energy in the area.
- 4.12 Relevant policies to be appraised include:

- STRAT 3 – The Green Belt and Urban Settlements In The Green Belt Policy
- ENV 16 – Renewable Energy Development Policy
- ENV 18 – Waste Management Policy
- ENV 38 – Renewable Energy Site Assessment Policy
- ENV 39 – Waste Management Site Assessment Policy

5.0 ENVIRONMENTAL IMPACT ASSESSMENT CONSIDERATIONS

Format of Assessments

5.1 It is proposed that each chapter will address a subject matter, set out in a standardised format and cover the following areas:

- Approach to Assessment;
- Issues;
- Baseline Conditions;
- Potential Impacts;
- Recommended Mitigation; and
- Residual Impacts

Land Uses

5.2 The topic of land use in Environmental Impact Assessment covers the existing conditions and uses of the site. This will constitute the baseline analysis and will be used when compared to the proposed development.

5.3 Issues relating to development of both adequate waste management infrastructure and alternative or innovative technology are also important issues to be examined by the Environmental Statement, as are the impacts upon any neighbouring land uses near the site.

5.4 The baseline surveys will include the status of the land within the relevant development plan, and will include a description of the current operations centred the site including an analysis of the quantitative and qualitative employment provision therein. It is anticipated that the impact of the development on the existing land uses will be largely qualitative in nature.

Landscape and Visual

5.5 The site is situated in a rural location. However, recent developments and proposals as part of Dovesdale Farm include a number of industrial type features for example, the asphalt plant and inert recycling operations. The wider area surrounding the proposal site is dominated by agriculture (grazing land) and the 3Mo wind turbines to the north east of the proposal site. Whilst the building which will accommodate the facility will be visible from a number of viewpoints, the emissions stack will be the most prominent feature of the proposal, measuring up to 25 metres in height. Both the stack and the proposed building will be finished in a neutral colour to minimise the visual impact of the structures.

5.6 The landscape and visual impact assessment will be carried out by a combination of desktop study and site work, for a defined area around the site based on

viewing points and sensitive land uses. The methodology to be used to carry out the landscape and visual impact assessment of the proposed development will be based upon that set out in Guidelines for Landscape and Visual Impact Assessment (The Landscape Institute and Institute of Environmental Assessment 2nd ed. 2002)

5.7 The first step will be to identify key receptors, the Zone of Visual Influence (ZVI) of the site and its environs, which will form the basis for the baseline surveys and assessment of impacts. This will be assisted by a desk-top review of strategic and local views and fieldwork to record existing views. The analysis will allow a set of key views to be established. Surveys will be carried out and photographic records will be taken, attending both to public and private view points.

5.8 At this stage it is intended to set up a dialogue with the appropriate officers of South Lanarkshire Council to identify suitable receptors for the purposes of visual and landscape assessments.

5.9 The purpose of this assessment will be to audit the physical and perceptual landscape of the proposal site and environs, indicating the current visibility of the site and principal receptors of views, and describing the landscape features of the development. This assessment will cover:

- Topography;
- Trees and woodland pattern;
- Land use;
- Built features;
- Settlements and individual buildings;
- Movement patterns – roads, rights of way;
- Pattern and scale of the landscape;
- Major landscape features;
- Principal viewpoints;
- Landscape character;
- Condition and importance;
- Sensitivity;
- Enhancement potential;
- Landscape quality; and,
- Landscape value.

5.10 Impacts on landscape resources will be assessed in terms of changes in landscape character and loss of specific elements. This will involve description and presentation of key impacts by means of written descriptions, maps and photomontages.

5.11 Each view of the site within the ZVI will be considered in respect of:

- visual impact on individual homes and defined settlement cells;

- visual impact on the proposed employment areas;
- visual impact on adjacent roads;
- visual impact on rail, river and canal users;
- visual impact on rights of way; and,
- visual impact on amenity areas.

5.12 Evaluation of the significance of any landscape impacts will depend on:

- the sensitivity of the affected landscape and visual resources, given the character, condition, importance, and tolerance of change of the existing landscape;
- the magnitude of impact according to scale, extent and duration of view;
- whether impacts are beneficial or adverse, taking account of the overall impact of the development on landscape character and quality and the specific impact on sensitive receptors such as views from recreational routes and properties.

5.13 There may be potential to improve the quality of the end result of the development by incorporating measures, such as screening and tree planting, within the development proposals. Impacts which cannot be 'designed-out' will be identified in the ES.

Ecology and Nature Conservation

5.14 Given the site's context and the lack of potential refugia it is considered that the site has low ecological potential. However, at this stage it is proposed to set up a dialogue with appropriate officers of South Lanarkshire Council to discuss and confirm the scope of the ecological assessments. It is considered that given the pastoral nature of the site a full site investigation would not be necessary.

5.15 If, following discussions with South Lanarkshire Council further assessment is required then it will be undertaken but on a scale relevant to the proposal site to classify and rank the importance of any habitats/receptors identified. Initially, baseline survey will take the form of a Phase 1 Habitat Survey in line with techniques outlined in the Handbook for Phase 1 Habitat Survey (Joint Nature Conservation Committee, 1993). However, it is considered that the assessment will not include a walkover survey but will assess the impact of the facility on identified habitats within a 10km radius of the site.

Traffic

5.16 The proposed facility will have good access to the primary road network. Carlisle Road serves as the main links to the wider network and as such already facilitates a significant level of traffic as a distributor road. In terms of impact on the existing network from the likely traffic generation of the proposed facility the significance

is anticipated to be relatively low. Consideration will be given to the traffic generation from the other existing operations of Dovesdale Farm, but it is expected that the proposed vehicles movements from the facility will be similar in scale and nature.

- 5.17 Given the relatively limited contribution to existing traffic flows from the surrounding area it is considered, at this stage, that a traffic impact assessment will not be required. However, a traffic statement will be provided in the appropriate chapter of the Environmental Statement. The ES will confirm the arrangements, including the improvements to the site access, and describe any further mitigation considered necessary, over and above those presently employed for similar integrated waste management operations. Consideration will also be given to the current operation of the highway network in the vicinity of the application site, and existing public transport provision. The assessment will also consider the impacts of the proposed development on traffic generation together with pedestrians, cyclists and public transport patronage.
- 5.18 To initiate the assessment process it is proposed that an early stage meeting with the local highways authority will be held to discuss any potential highway impacts that may result from the facility.
- 5.19 Issues relating to noise, air pollution and visual impacts arising from the transport-related elements of the proposals will be considered elsewhere in the appropriate sections.

Geology, Ground Conditions and Land Quality

- 5.20 Under this heading there are a wide range of issues relevant to the ES. These include geotechnical aspects that might affect the methods of construction employed by the developer, issues arising from the previous uses of the site, coal mining activities in the immediate environs, and the presence of any contamination deposits within the site. However, given the historic agricultural use of the site the potential for existing ground contamination to be encountered on site is expected to be very limited.
- 5.21 Initially, the EIA will assess the impact of historical uses of the site by means of a desk top survey. The results from which will inform the requirement for additional site investigations, however, at this stage we do not anticipate to undertake detailed on-site ground investigations.

Hydrology and Hydrogeological

- 5.22 The assessment will describe the baseline hydrology and hydrogeological conditions within and around the site. This will be based desk top assessment. The baseline survey will relate existing conditions to any projected trends that

might influence the potential impacts of the development. The assessment will cover issues such as climate, geology, existing drainage and water quality.

5.23 The ES will determine any impact of the scheme on the local water resources and describe measures to mitigate those impacts. This will focus on anticipated surface and groundwater impacts and potential pollutants associated with the proposed development during the construction and operational stages. Impacts will be judged against the relevant criteria, standards and policies, such as those of the EA.

5.24 Impact receptors to be considered will include:

- surface water and run off;
- groundwater;
- washlands and flood plain;
- recreation, conservation, amenity and fisheries;
- water quality; and
- sewerage.

5.25 Where appropriate, the ES will identify possible mitigation measures to ameliorate adverse impacts in respect of the water environment. This will include the use of appropriate design, construction, and management procedures.

Noise and Vibration

5.26 The proposed facility will comprise a number of noise sources that can potentially cause a noise nuisance. These include the stack, turbine hall, external cooling module, sorting operations associated with the MRF, on-site vehicle movements, etc. The potential for actual noise impacts is however be dependent on the existence of noise sensitive receptors in close proximity to the site. An assessment of predicted noise levels from the proposed development at potentially noise sensitive locations surrounding the site will be undertaken. Those potentially noise sensitive locations will be identified in discussion with South Lanarkshire Council.

5.27 Background and ambient noise levels will be established and thereafter, the predicted noise levels based on proposed plant and machinery, vehicles and activities both during construction and throughout the operational life of the development will be assessed in terms of pathways of sound and level of impact to receptors.

5.28 Baseline conditions will be assessed by a noise survey undertaken in the most sensitive areas surrounding the site. The facility will operate 24 hours – 7 days a week as such the survey and noise assessment will also cover night time periods.

- 5.29 The procedures and sound power level data in BS5228 “Control of Noise on Construction and Open Sites” (1987) will be employed to estimate construction noise and vibration levels, although measured data for similar, modern plant and machinery (to that to be used on the site) will be used in the assessment.
- 5.30 Predicted noise levels will be compared with the existing noise levels at noise sensitive properties, and their significance will be assessed. Methods contained in BS4142 (1997) “Method for Evaluating Industrial Noise affecting Mixed Residential and Industrial Areas”, will be employed to assess the impact of noise.
- 5.31 Measures to mitigate impact will vary, depending on the significance of the impact. The ES will recommend mitigation measures to ensure any noise impacts are not significant.

Air Quality

- 5.32 Under the Waste Management Licencing and Pollution Prevention Control Regulations in Scotland is achieved by eliminating or reducing unwanted emissions form industrial processes at source. Any remaining emissions to the atmosphere are then released in such a way as to render them inoffensive and harmless.
- 5.33 The proposed facility will be operated to Waste Management Licencing standards, which are regulated by the Scottish Environment Protection Agency. The WML objectives are attained by the principles of Best Available Techniques (BAT). The advanced thermal treatment plant will also operate within the emission limits set by the European Waste Incineration Directive 2000 (94/67/EC) (WID).
- 5.34 Atmospheric emissions from the gasification process will be directed through a flue gas duct into a stack. The height of the stack will be determined by detailed air dispersion modelling. Initially, investigations suggest a stack height of up to 25 metres. The main source of impacts on local air quality is likely to in the form of oxides of nitrogen and sulphur dioxide.
- 5.35 An assessment of the proposed development on local air quality will be undertaken, with references to UK Air Quality Objectives and any existing or proposed Air Quality Management Areas. This assessment will address the emissions of nitrogen oxides, sulphur dioxide and particulates during the operation of the energy recovery process.
- 5.36 An assessment will be made of climate change, effects on sensitive habitats, plume visibility and dispersion issues. Predictions of future changes to local air quality resulting from the proposed gasification process will be undertaken using the computer based atmospheric dispersion model ADMS. The modelling will quantify the gaseous and odour emissions for the site.

- 5.37 The air quality assessment will include the identification of potential odorous sources on site, an evaluation risk of fugitive emissions, a prediction of the exposure of sensitive receptors to the odour and the identification of mitigation measures. This will be qualitative.
- 5.38 The emissions of dust during the construction period will be assessed qualitatively with discussion of dust suppression measures that might be employed. A qualitative assessment of the potential effects associated with construction related traffic will also be undertaken.

Flood Risk

- 5.40 The site will be assessed in accordance with SPP7, to ensure the proposed development itself is not a risk from flood and will not increase flood risk elsewhere. Information obtained from the SEPA indicates the site is not located in area at risk of fluvial and tidal flooding.
- 5.41 In accordance with SPP7 an assessment of the impacts of the development on surface water regimes at the site will be provided. This will include establishing the likelihood of flooding and possible effects on flood risks elsewhere in terms of projected surface water generation, flood storage capacity and the run off implications. Based on the latest information on flood risk, mitigation measures to reduce potential impacts to acceptable levels will form part of the design strategy for the site.
- 5.42 Where appropriate, the options for surface water management, attenuation, storage and disposal, incorporating the use of Sustainable Urban Drainage Systems (SUDS) shall be assessed.

Socio-economic

- 5.43 The ES will describe the employment structure within South Lanarkshire as a result of the development of the facility. The assessment will consider the role of the project in contributing towards local and regional economic, sustainability and energy strategies.

Cultural Heritage

- 5.44 Given the location of the site it is unlikely there will be any archaeological/cultural assets worthy of protection. An initial desk top survey will inform the need for additional survey work. If necessary however, this section will assess the nature and significance of impacts of the proposed development on the identified archaeological resource and other aspects of cultural heritage and consider appropriate means of mitigating these impacts.

6.0 SUMMARY

- 6.1 Scotgen Limited proposes to submit a Planning Application and accompanying Environmental Statement for permission to carry out the proposed development as outlined above.
- 6.2 The Planning Application and Environmental Statement will describe proposals for the development of an integrated waste management and energy generation facility at Dovesdale Farm and provide an assessment of the potential impacts associated with this development.
- 6.3 This scoping report has identified the key issues in relation to the environmental effects of the proposed development and sets out the nature and scope of the proposed surveys and assessments which will be undertaken as part of the Environmental Impact Assessment.
- 6.4 It is considered that the scope of items featured in this report and proposed reporting format of the Environmental Statement will provide satisfactory data and information to enable the planning application to be determined in accordance with the Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 1999.

APPENDIX A



Enterprise Resources

Proposal of application notice

Town and Country Planning (Scotland) Act 1997
as amended by the Planning etc (Scotland) Act 2006

The Town and Country Planning (Development Management Procedure)
(Scotland) Regulations 2008

The Council will respond within 21 days of receiving the notice. It will advise whether the proposed pre-application consultation is satisfactory or if additional notification and consultation above the statutory minimum is required. The minimum consultation activity includes consultation with the relevant community council(s), the holding of one public event and its advertisement in a local newspaper. The Council's leaflet 'Pre-application consultation' provides more detail on this matter.

Part 1 Name and address of applicant(s).

Name	Scotgen Ltd		
Address	Scotgen Ltd, Dargavel Store off Lockerbie Road, Dumfries, Scotland		
Post code	DG1 3PG	Daytime phone	01387 240066
Email			

Part 2 Name and address of agent (if any).

Name	James Cook		
Company	Stratus Environmental Ltd		
Address	4245 Park Approach, Thorpe Park Leeds		
Post code	LS15 8GB	Daytime phone	07714 704969
Email	james.cook@stratus-environmental.co.uk		

Part 3 Full address or location of the development site.

Address	Dovesdale Farm, Carlisle Road, Stonehouse Larkhall,		
Post code	ML9 3PR	Site area (in hectares or sq.m.)	4.9ha

Part 4

Plan.

Please outline the site in red on an ordnance survey based location plan which is at a scale sufficient to clearly identify the site and attach it to this notice.

Part 5

General description of proposed development.

Please give a general description of the development to be carried out. Outline its characteristics and state whether it is a national or major development.

The proposed facility consist of an Energy Recovery Facility (ERF) and a Materials Recycling Facility (MRF) with a combined processing capacity of 100,000 tpa. A combined heat and power (CHP) unit will be provided as part of the process and will enable the production and export of approximately 7MWe and/or 17MWT of low carbon renewable energy to surrounding developments.

As the proposal is considered to a schedule 1 development under the 'EIA Regulations', it is considered that the proposal is a 'major development' under the Planning etc (Scotland) Act 2006 'Definitions of Developments'.

Part 6

Details of proposed consultation.

Please provide details of what consultation you intend to undertake, when it is to be carried out, with whom it will be carried out with and what form it will take.

The list below represents the programme of proposed consultation.

Dedicated web site will be created providing detailed information on the proposal and contact details.

Briefing pack will be sent to host (Larkhall) and adjoining (Avondale & Stonehouse, South Clydesdale) Ward Councillors.

The host and adjoining Community Councils (Stonehouse and Clyde Valley) will also be sent the briefing pack. But it is understood that the Ashgill & Netherburn and Blackwood CCs are not formed.

Media briefing pack to be sent to local radio and newspapers (Hamilton Advertiser and Strathaven Echoes).

A public exhibition will be held at the nearest appropriate venue (possibly Stonehaven) in February/March 2010. This event will be advertised in all the media to be distributed above.

Part 7

Other parties notified.

Please state which other parties have or will receive a copy of this proposal of application notice.

SEPA
Scottish Natural Heritage
Transport Scotland
Scottish Water
Scottish Wildlife Trust
Telecommunications Provider

Declaration

I hereby certify that the information given by me in this form is true and accurate to the best of my knowledge.

Signature of applicant/ agent* (Delete as appropriate)

Date

Part 8

What happens next?

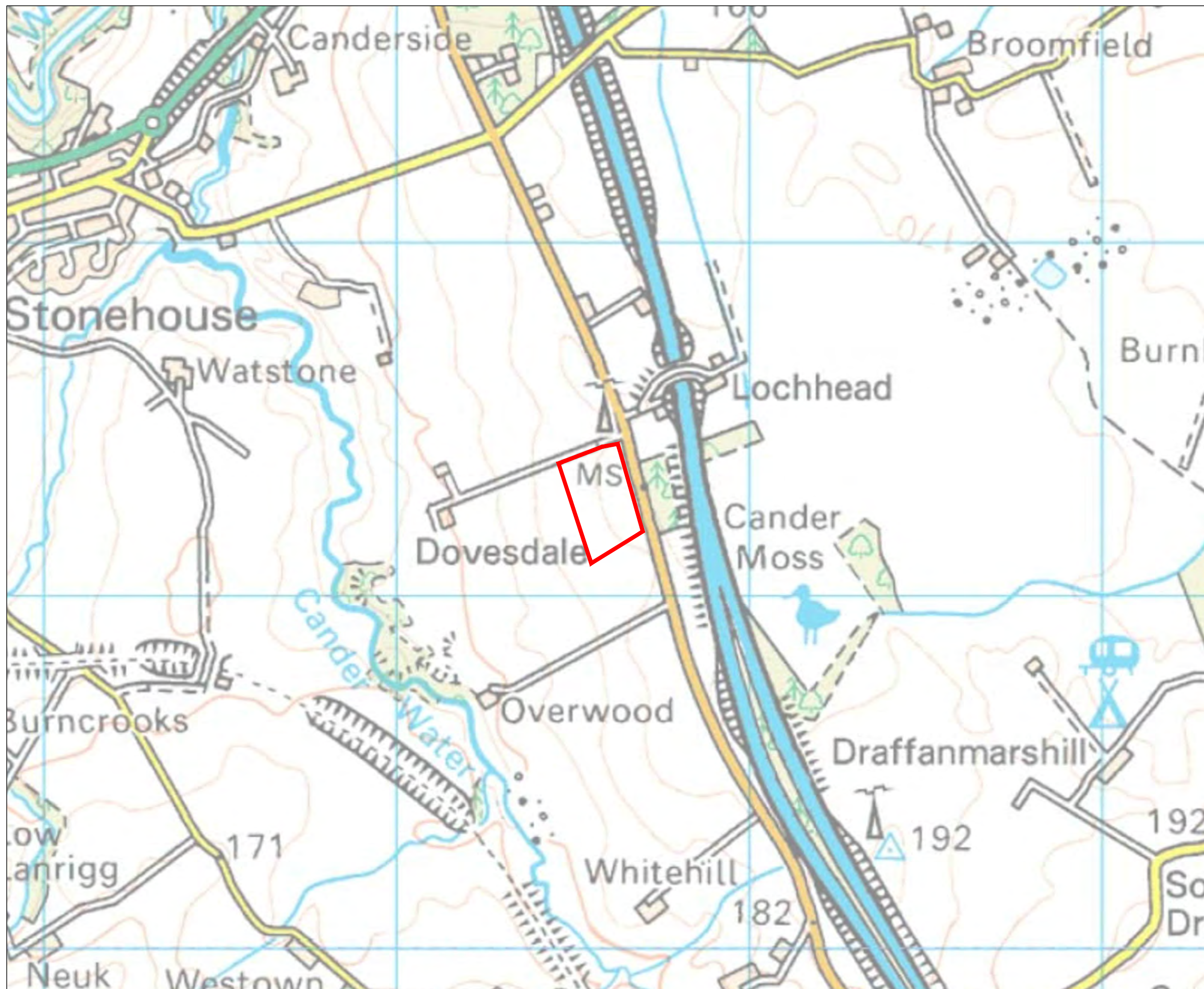
1. South Lanarkshire Council will provide a written response to this proposal of application notice within 21 days of its receipt.
2. When we respond to you, we will advise you of any additional persons who should be given a copy of the proposal of application notice and any additional consultation which should take place, specifying what form that consultation is to take).



Data Protection Act 1998

The Council will use the information on this form in order to determine the classification of the development in the proposed hierarchy. Information will only be disclosed in accordance with the requirements of the Town and Country Planning (Scotland) Act 1997 as amended by the Planning etc. (Scotland) Act 2006. However, the information may be provided to third parties on request under the Freedom of Information (Scotland) Act 2002.

Please note that the Council is required to publish a list of planning applications and proposal of application notices on its website. Personal telephone numbers, email addresses and signatures will not be made public.



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KEY
 PROPOSED SITE BOUNDARY

REV.	DESCRIPTION	DATE



STRATUS ENVIRONMENTAL LIMITED
 4245 PARK APPROACH
 THORPE PARK
 LEEDS
 LS15 8GB
 T: 0113 264 9960
 E: info@stratus-environmental.co.uk
 W: stratus-environmental.co.uk

CLIENT



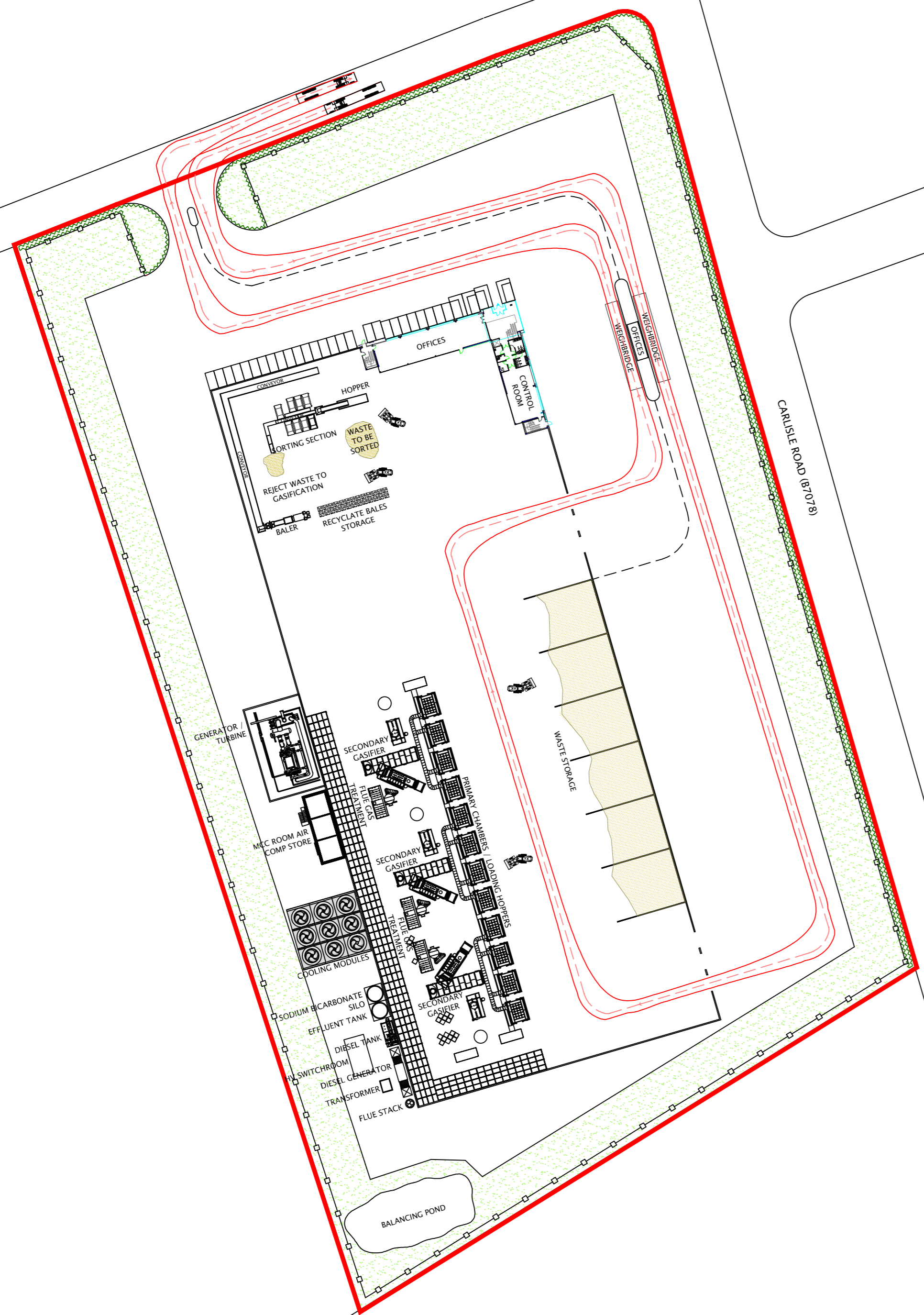
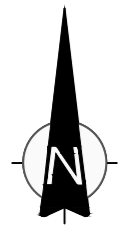
SCOTGEN
 (Dumfries) Limited
 WASTE TO ENERGY

PROJECT
 DOVESDALE FARM,
 LANARKSHIRE

DRAWING TITLE
 LOCATION PLAN

DRAWN	DATE	APPROVED	DATE
S.T	17/12/09	J.C	17/12/09
SCALE	SHEET	DRAWING NUMBER	REVISION
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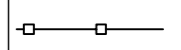
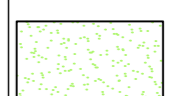
DRAWINGS



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- NOTES
1. ALL LEVELS TO mAOD
 2. DO NOT SCALE FROM THIS DRAWING

KEY


	SHRUBS MAX HEIGHT 1.05m
	1.8M HIGH HIT AND MISS FENCING
	LANDSCAPED AREAS

REV.	DESCRIPTION	DATE



STRATUS ENVIRONMENTAL LIMITED
4245 PARK APPROACH
THORPE PARK
LEEDS
LS15 8GB
T: 0113 264 9960
E: info@stratus-environmental.co.uk
W: stratus-environmental.co.uk

CLIENT



SCOTGEN
(Dumfries) Limited
WASTE TO ENERGY

PROJECT

**DOVESDALE FARM,
LANARKSHIRE**

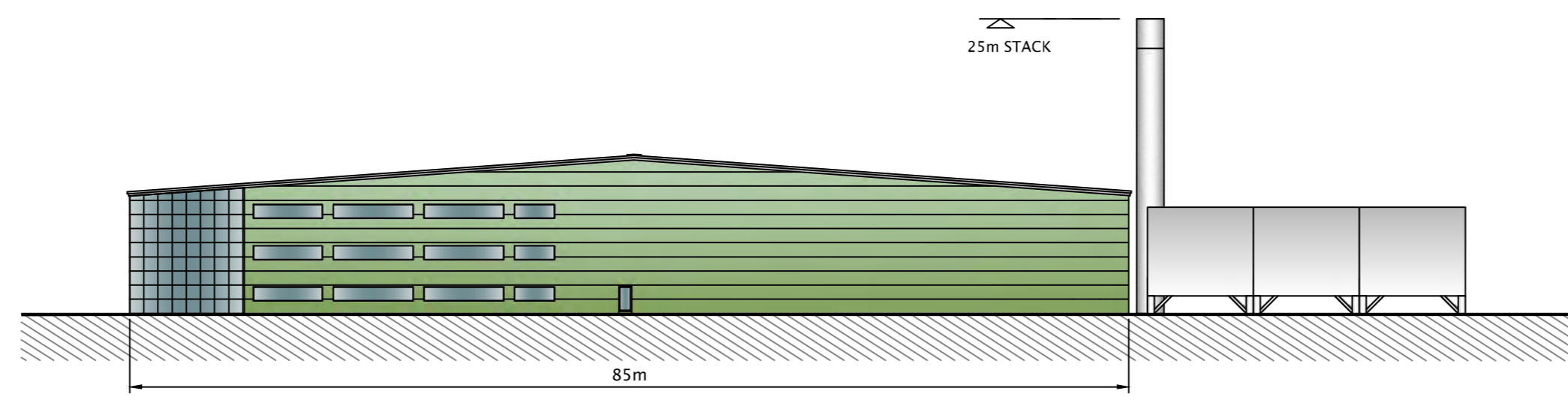
DRAWING TITLE

PROPOSED LAYOUT

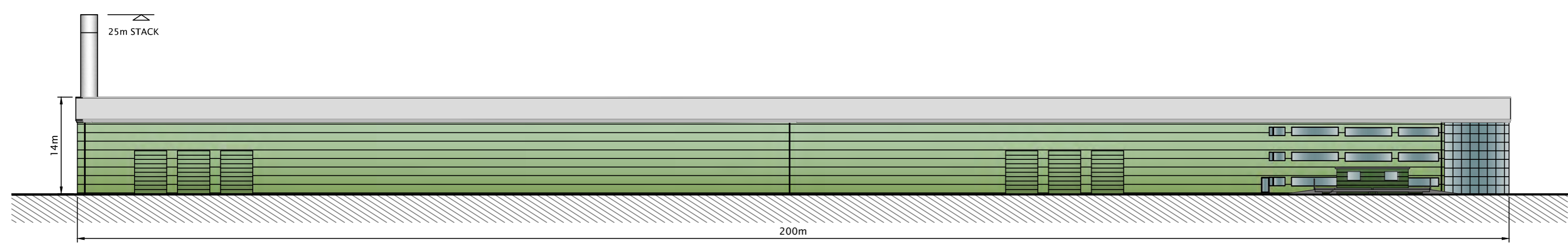
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SCALE	SHEET	DRAWING NO.	REVISION
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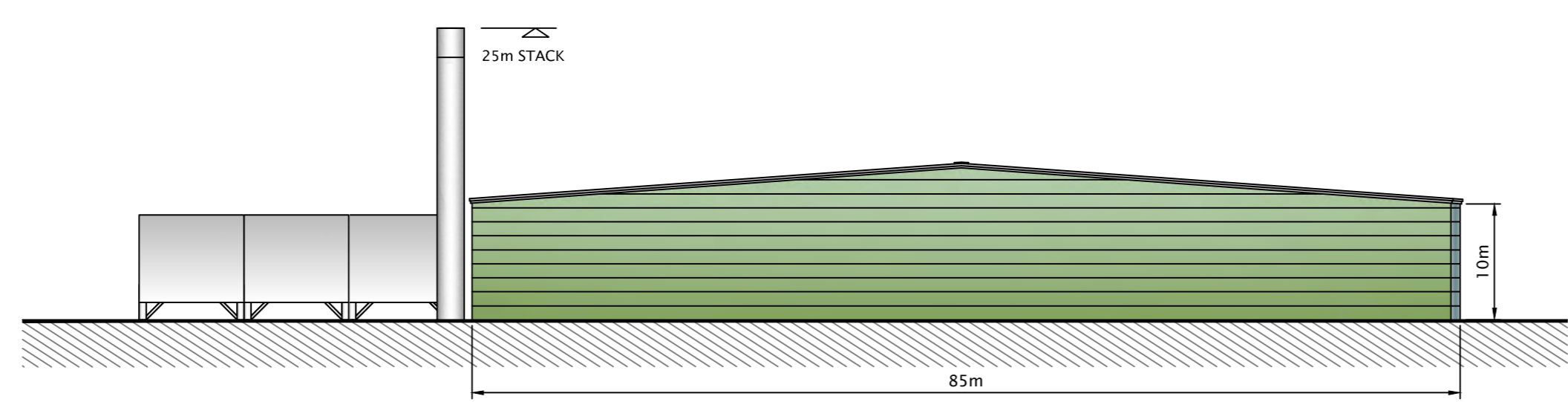
- NOTES
1. ALL LEVELS TO mAOD
 2. DO NOT SCALE FROM THIS DRAWING



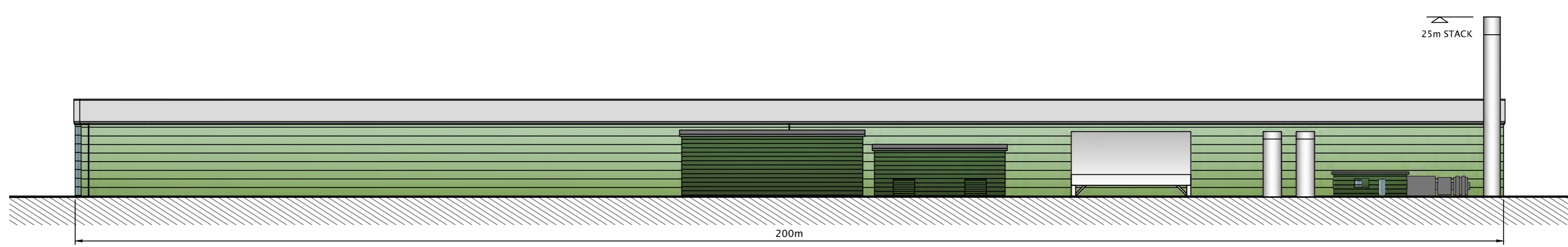
NORTH ELEVATION



EAST ELEVATION



SOUTH ELEVATION




WEST ELEVATION

REV.	DESCRIPTION	DATE



STRATUS ENVIRONMENTAL LIMITED
4245 PARK APPROACH
THORPE PARK
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LS15 8GB
T: 0113 264 9960
E: info@stratus-environmental.co.uk
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CLIENT



SCOTGEN
(Dumfries) Limited
WASTE TO ENERGY

PROJECT

**DOVESDALE FARM,
LANARKSHIRE**

DRAWING TITLE

PROPOSED ELEVATIONS

DRAWN	DATE	APPROVED	DATE
S.L.J.	11/12/09	N.D.	11/12/09
SCALE	SHEET	DRAWING NO.	REVISION
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