THE TOWN AND COUNTRY PLANNING
(ENVIRONMENTAL IMPACT ASSESSMENT)
(ENGLAND AND WALES) REGULATION 1999

PROPOSED ENERGY RESOURCE CENTRE AND COMMUNITY RECREATIONAL FACILITIES

LAND AT BERESFORD'S, CHEADLE ROAD, AND ADJOINING FACTORY OFF FELTHOUSE LANE, CHEDDLETON

ENVIRONMENTAL STATEMENT

FOR

JOHN POINTON AND SONS LIMITED

OUR REF: 05/2351/C/W

AUGUST 2008

the GRAHAM BOLTON PLANNING partnership limited

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Prepared By:		G J Bolton Director
Checked By:		Fiona B Child

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ENVIRONMENTAL STATEMENT

1. INTRODUCTION

1.1 John Pointon and Sons Limited operate a rendering plant based at Cheddleton, near Leek, Staffordshire. Rendering is the application of heat, sometimes with pressure as well, to animal by-products, which are primarily the parts of animals for which there is no immediate market outlet, to transform this material into meat and bone meal (MBM) and extract the fat, known as tallow. More refined meat and bone meal derived from avian material is generally known as Processed Animal Protein (PAP). Pointon's plant is the largest single plant in Great Britain and the existing business covers an extensive area (6 hectares) at the end of Felthouse Lane, a part private road and unadopted highway to the south of the settlement of Cheddleton close to Wetley Rocks.

1.2 The main factory complex is covered by an array of large buildings as the reception, handling, treatment and subsequent storage of resulting products and effluent is all contained within buildings or plant. Apart from the specific process requirements for containment, this is primarily because of the malodorous nature of raw animal by-products, which is putrifying animal remains, and the effluent from the process which is also highly malodorous, the products of MBM and tallow being significantly less so. To operate the plant requires very considerable amounts of energy and while the process of rendering is one prescribed for IPPC permitting under the Pollution Prevention and Control Regulations, 2000, the installed capacity for power generation is such that Pointon's plant is also permitted under the IPPC Regulations as a large combustion plant. Further details are given in the section below on IPPC Permitting.

1.3 Pointon's rendering plant is one of only 31 licensed plants in the whole of the country (of which 4 are fishmeal plants and several are small scale blood or poultry operations) but the only plant in the country which is licensed under the Animal By-

Products Regulations to accept and process Category 1/2 and Category 3 material in segregated lines at the same location. A feature of the industry since the BSE crisis, from the mid 1990s, and subsequent Foot and Mouth Disease (2001) is that the few plants in the industry have less flexibility with individual plants being licensed for certain types of Categories of material only. The Planning Statement, which also forms part of this Environmental Statement, details the nature of the industry and the segmentation which has occurred. As a consequence of this industry being the main means of disposal of animal by-products and also its segmentation, this industry is of national importance. The industry serves the needs of the meat industry, meat processing plants and food manufacturers and farmers throughout the whole country. An efficient rendering industry also keeps costs down ultimately for the farmer and consumer, while dealing with the detritus of the meat industry in a prescribed and environmentally friendly manner. The process of rendering is one of the original re-cycling activities with MBM or PAP traditionally being fed back to animals as feed. Intra-species feeding is now banned and inter-species feeding is severely limited but is expected to change with avian products, in addition to the current fish derived products, being allowed back into feedstuffs for certain species.

1.4 The proposal of the Planning Application which this Environmental Statement accompanies, arises out of the hiatus originally caused by the BSE and Foot and Mouth Disease crises and the regulatory regime which was then imposed and which has seen considerable changes. With a more stable regulatory climate, and with the science better understood as to what can be reasonably permitted without injury to animal or human heath, the industry as a whole is moving to make better use of MBM and tallow; both products having to be treated as "waste" in certain circumstances.

1.5 The proposal which is deemed to be an EIA development is the Energy Resource Centre (ERC) part of the development which forms the Planning Application, the other part being Community Recreational Facilities (CRF) and the diversion of Felthouse Lane at its western end to form a new junction with Cheadle Road (A520). The ERC has two key elements, one being a plant to produce bio-diesel from tallow, and the other being a 20MW electricity generating plant which will use tallow and

also some residual products from the bio-diesel production unit as fuel. The intention is, therefore, that not only will the plant produce bio-diesel which will contribute to the UK's Renewable Transport Fuel Obligation to substitute bio-fuels for mineral based ones but will also generate its own "green" energy from a renewable energy source which will contribute to the UK's obligation under the Kyoto Protocol, and subsequent European Union legal obligations to reduce carbon emissions. The other elements of the ERC proposal are primarily storage facilities, which will reduce traffic movements resulting from a reduced need for off-site storage, and multiple handling of certain products, together with maintenance facilities. The CRF proposal and diversion of the western end of Felthouse Lane are an integral part of the Planning Application but do not form part of this Environmental Statement. They do not constitute EIA development and are clearly identifiable and distinguishable and on a separate area of land a short distance from the main factory.

1.6 Format of Report

1.6.1 This Environmental Statement addresses each of the issues listed in Part II of Schedule 4 of The Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations, 1999. It is considered that the proposed ERC falls under both items and 3 and 6 in the Table 2 Schedule 2 of the Regulations (see Section 2 below).

1.6.2 The matters listed in Part II of Schedule 4 to the EIA Regulations are:

- A description of the development comprising information on the site, design and size of the development.
- A description of the measures envisaged to avoid, reduce and, if possible, remedy significant adverse effects.
- The data required to identify and assess the main effects which the development is likely to have on the environment.
- An outline of the main alternatives studied by the applicant and indication of the main reasons for the choice, taking into account the environmental effects.

- A non-technical summary of the information provided under the foregoing four items.

1.6.3 As part of the accumulation of data to undertake the Environmental Impact Assessment specific specialist reports have been commissioned on the following items:

- Landscape Impact and Visual Assessment, including a Tree Survey, prepared by The Appleton Group, Landscape Architects
- Ecology, Biodiversity and Nature Conservation assessment, including site surveys, review and mitigation proposals, prepared by Environmental Research and Advisory Partnership and a further Bat and Barn Owl survey report prepared by Middlemarch Environmental Ltd
- Transport Assessment incorporated into a "Transport Statement" prepared by Singleton Clamp and Partners, Consulting Engineers and Transportation Planners
- Report on potential Light Pollution, and means of attenuation and mitigation, prepared by Clancy Consulting Limited; this is primarily a cautionary report detailing how attenuation mitigation can be undertaken from the outset by appropriate design and forethought
- Flood Risk Assessment and Surface Water Drainage Report prepared by Shepherd Gilmour, Consulting Infrastructure Engineers, including Addendums 1 and 2; this has included undertaking porosity tests to inform appropriate drainage design
- Report on impact upon Air Quality and Air Dispersal Modelling, prepared by Enstec Services, to verify both the specific effect of the proposed development and cumulative effect with emissions from the existing rendering factory
- Noise Assessment Report prepared by WSP Environmental UK, which refers to potential noise from the Community Recreational Facilities; Energy Resource Centre and traffic using the proposed new link-road

- Preliminary Contamination Assessment Report prepared by Tony Gee and Partners LLP including a Ground Investigation Report prepared by Structural Soils Ltd
- Planning Statement, including review of Development Plan policies, prepared by The Graham Bolton Planning Partnership Limited; this weighs the benefits and adverse effects of the proposed development of the proposed ERC, CRF and diverted western end of Felthouse Lane to form a new link road with its new junction on to Cheadle Road, together with the non-development proposal to cease use of the Staffordshire Farmers site opposite the site of the CRF, to remove the buildings and to return that land to an agricultural or forestry rural use

1.6.4 This Environmental Statement reviews the data and refers as necessary to it. It also considers the main alternatives studied by the applicant and indicates the reasons for the choice of the proposed development having taken into account the environmental effects. This ES concludes that the proposed development will not have significant adverse effects upon the environment, or environmental media, and that such effects there are can be mitigated to reduce their impact further.

1.7 Advertising

1.7.1 This Environmental Statement is submitted with the Planning Application. As such, advertising of the EIA development is not required to be undertaken by the applicant but forms part of the advertising of the planning application undertaken by the local planning authority.

1.7.2 In order to assist with the consultation process, an applicant for an EIA development is required to provide copies of the Environmental Statement to the local planning authority for submission to the Secretary of State and various statutory and non-statutory consultees. Following discussions with officers of the local planning authority, the following consultees have been provided directly with a copy of the

Environmental Statement for consideration and comment to the local planning authority:

- The Environment Agency
- English Nature
- Staffordshire County Council
- The Primary Care Trust

1.7.3 Copies of the Environmental Statement can be obtained from the offices of the local planning authority, Staffordshire Moorlands District Council, or directly from The Graham Bolton Planning Partnership Limited, whose offices are at Onward Buildings, 207 Deansgate, Manchester M3 3NW (Tel 0161 833 1616, manchester@gbpp-planning.co.uk) at a cost of £270 for a hard copy of the Environmental Statement and accompanying specialist reports or a cost of £20 for an electronic copy (CD) of the Environmental Statement and accompanying specialist reports.

1.7.4 The application will be advertised by the Local Planning Authority. The advertisement will specify the date by which representations in response to the Environmental Impact Assessment application should be made, which should be addressed to:

Head of Planning,
Staffordshire Moorlands District Council,
Moorland House
Stockwell Street
Leek
Staffordshire
ST13 6HQ

1.8 The Company has for some considerable time had regular liaison meetings with the Parish Council. However, the development for which planning permission is sought, and the integral associated proposals, have not been a matter of formal prior discussion with the Parish Council – until the project had reached an appropriate stage it could not go "live".

1.9 The Company and its consultants engaged in extensive public consultation once the proposal had reached a cogent form. The Company did a number of things:

- An initial courtesy consultation and notification to Councillors prior to a public announcement
- An Open Day held at Cheddleton Community Centre, with a house by house local notification and announcements in the local press
- Brochures circulated to local people illustrating the project
- Paid reply card enabling people to provide an initial response and raise questions
- Dedicated website illustrating the project and also providing an electronic response system
- Open day held on 26 March, 2007, at which there were displays, presentations, answers to the questions raised by people in the response cards and also on the day and personnel on hand to explain the project in full

1.10 The Planning Statement provides further information on the response of local people and the Cheddleton Residents Action Group. Copies of the paid reply card/invitation to the Open Day and the brochure are appended as part of the Planning Statement.

1.11 The Company has sought to be open and transparent about its proposals. The proposed location of the proposed uses, and notably where to locate the Energy Resource Centre, is in large part a result of an assessment of which location would result in the least likely impact of the proposed ERC development upon local people and the environment generally. As a result, and as detailed in the Planning Statement, the decision was made not to utilise the former Beresford's bus depot, which is allocated for industrial development and for which there has been a grant of planning permission, as the site for any part of the ERC development because visually, in noise and emission terms there would be most impact upon local people and the local environment. The applicant Company has, therefore been sensitive to the potential

impact of the proposed EIA development in locating the proposal as well as in its specific design as referred to later in this ES.

1.12 Apart from prior consultation with representatives of the local authority, the full planning and EIA application has been the subject of a formal pre-application submission. The comments received from the local planning authority, Staffordshire Moorlands District Council, have been taken into account and where necessary the Environmental Impact Assessment has been augmented – specifically, a noise impact assessment, a preliminary contaminated land assessment and further work in respect of both ecological baseline information and drainage issues have been undertaken.

2. IDENTIFICATION OF EIA DEVELOPMENT

2.1 The Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999, as amended, prescribe certain developments for environmental impact assessment under Schedule 1. Schedule 2 lists developments which may need to be the subject of environmental impact assessment if they fall within certain criteria having regard to the potential impact of the particular development and whether the impacts may be environmentally significant.

2.2 Class 3 of Schedule 2 to the Regulations refers to the Energy Industry and includes industrial installations for the production of electricity where the area of development exceeds 0.5 hectares; Schedule 2, Class 6, Chemical Industry, includes the treatment of intermediate products and production of chemicals where the area of new floorspace exceeds 1000m^2 and also storage facilities for petroleum, petrochemical and chemical products where the area of any new building or structure exceeds 0.05 hectares or more than 200 tonnes of petroleum, petrochemical or chemical products is to be stored at any one time. It is considered that elements of the proposed ERC development potentially fall within the remit of these classes.

2.3 Regard has been had to the selection criteria for screening Schedule 2 development, as referred to in Schedule 3 of the Regulations. In terms of the Characteristics of Development, it is considered that the following are particularly relevant:

- The size of the development
- Accumulation with other development
- The potential for pollution and nuisances

In respect of the Location of Development there is no particular environmental sensitivity of the geographical area but regard has been had in particular to:

- Existing land use
- The landscape

- The planning status of the site (this is not a specified criteria within Schedule 3)

With regard to the Characteristics of the Potential Impact, the following matter is particularly relevant:

- The magnitude and complexity of the impact

2.4 In view of the above it is considered that the proposed Energy Resource Park part of the proposed development is required to be the subject of environmental impact assessment and is "EIA development" as defined in the Regulations.

3. THE PROPOSED DEVELOPMENT

3.1 The Existing Site

3.1.1 The site of the proposed Energy Resource Centre (ERC) lies to the south east of the main factory site and to the north east and adjoining the site of the water treatment plant. The overall proposal and location plan, drawing 1192-13M, illustrates and defines the site (appended at A) while drawing 1192-10H Rev B illustrates the ERC site only (appendix D).

3.1.2 The overall site area extends to 4.4 hectares and is presently a green field, formerly in agricultural use – it has not been used for agriculture for many years and is now degraded pasture land. The site slopes downwards from southwest to northeast towards the Churnet River and Caldon Canal. To the immediate south east, the site is bounded by a track, which is also a public footpath, which provides access from the main factory site to an off-site temporary meal store which lies to the north of the factory and proposed ERC as illustrated on drawing 1192-13M Rev C.

3.1.3 There is a further open field, in the ownership of the Company, to the north of the proposed site but which is not included in the planning application; the intention is to plant trees in part of this field area as an additional feature of the current proposal and the field may also be used, subject to specific investigation and design, for water attenuation purposes in connection with storm water run-off from the site, which may occur in extreme, 1in100 year events. The lorry park and bio-filters of the main factory site lie to the west of the proposed site of the ERC.

3.2 The Proposed Development

3.2.1 The proposed Energy Resource Centre development consists of a bio-diesel production unit, including pre-treatment plant, a renewable energy power generation unit, new storage buildings for Category 1/2 MBM and Category 3 MBM/PAP

together with a secure storage facility for waste packaged food, and vehicle and plant maintenance workshops.

Bio-Diesel Production Unit

3.2.2 Bio-diesel is an organically derived fuel resulting from the esterification process to convert fats and oils in the presence of methanol. Bio-diesel is a bio-degradable, non-toxic, non-carcinogenic, non-mutagenic and non-allergenic fuel. Its use can reduce CO2 emissions by more than 80% and it is a carbon neutral fuel derived from renewable sources.

3.2.3 The intention is to use fats and oils produced at the rendering plant which, with the introduction of methanol and other chemicals, will produce primarily bio-diesel and also saleable products such as glycerol; some of the methanol and other chemicals are recovered for reuse. As referred to in the Policy section, it is part of European Union and UK policy to increase the use of bio-fuel as a substitute for mineral based fuels and oils.

3.2.4 The proposed bio-diesel production unit will consist of a pre-treatment unit, with associated raw material silos, the bio-production unit itself together with end product silos. Initially, it is proposed to process 25,000 Te of tallow but increasing to up to 50,000 Te.

3.2.5 A technical description of the process of bio-diesel production is provided in the document of that name, a copy of which is appended at E. This technical report, which formed part of the IPPC Permit application (see Section 5), details the processes by which bio-diesel can be produced – the process to be adopted by the applicant Company is esterification. As noted in that report, while methanol and other chemicals are introduced in this process, there is also significant recovery of those materials, notably methanol, and there is no waste effluent produced. It is expected that certain residual products will, however, not be sold or disposed of into the market place but may be used to supplement fuel for the proposed electricity generating plant.

Renewable Power Generation Unit

3.2.6 The proposal is to install five x 5MW power generating engines, up to four of which will be running at any one time with one on standby/maintenance. The initial intention is to be able to generate 10MW of energy from this unit, building up later to 20MW with the installation of all engines. The engines will be fuelled by tallow primarily produced by the Company but supplemented with supplies from elsewhere. Surplus heat from electricity generation will be recovered to raise steam for use in the adjoining rendering plant which will reduce the need for the present output from the main boilers and/or thermal oxidisers.

3.2.7 The importation of Category 1 tallow may be necessary in the short term until the issue of burning tallow as a fuel in the main factory boilers, which are non-Waste Incineration Compliant, is resolved. Burning tallow as a fuel (co-incineration) is, in the opinion of the Government, a waste disposal activity and can only be utilised in WID compliant boilers and facilities; the proposed 5MW engines will be WID compliant. The Company must, therefore, plan for the use of an alternative fuel which is not waste which will then release the tallow used in the main boilers for use in the ERC and eliminate the need for short term importation of some tallow. The recovered energy to raise steam will also reduce the present tallow consumption in the main boilers.

3.2.8 This proposal requires a substantial building to house the power generating plant together with a chimney which extends to 30m in height with a diameter of 3.3m, including lagging. The height of the chimney has been determined following an air dispersal modelling exercise and the need to ensure dispersion of all emissions, taking account of the existing emissions from the rendering plant, to comply with air quality standards. The chimney will, however, be lower than the existing chimneys on the main factory site due in part to the fact that the ERC site level is substantially lower than the factory site.

Other Buildings

3.2.9 New storage buildings for Category 1/2 MBM and also Category 3 MBM/PAP are proposed. The former is intended to provide additional on-site storage capacity in lieu of off-site storage which will considerably reduce heavy goods vehicle movements arising from the need to remove MBM off-site until ready to be conditioned for eventual weighing and despatch to Castle Cement who presently use Category 1/2 MBM as a fuel substitute in their cement kilns. The Category 3 store will also substitute for current off-site storage facilities. In this instance, there can be quadruple handling of Category 3 MBM/PAP arising from the need to store the material, bag and test the product, remove off-site again prior to final weighing and despatch to customers from the main factory site.

3.2.10 Adjoining the Category 1/2 store, and forming part of the overall building structure, would be new maintenance workshops for the plant (including the main factory site) and a vehicle maintenance facility to replace the inadequate and undersized current maintenance vehicle building on the main rendering factory site. The introduction of this latter facility will also assist in ending the current use of Staffordshire Farmers as a vehicle operating depot which will in turn, with other related matters, lead to the cessation of that site as a whole, the removal of buildings and its return to a rural use.

3.2.11 The secure store for packaged food will adjoin, at a higher level, the Category 3 store. This is required to provide storage for packaged foodstuffs which contain animal by-products which are to be required to be disposed of in line with the European Union Animal By-Products Regulations; currently there is a derogation in force which has allowed the continued collection and consignment to landfill of such waste which is primarily out of date or soiled foodstuffs.

3.3 Size of the Proposed Development

3.3.1 The site of the ERC extends to 4.4 hectares. The proposed individual elements of the ERC will be developed, including internal access roads and ancillary turning and car parking areas within a bounding area of landscaping,.

3.3.2 As the site slopes down steeply from southwest to northeast, it will be necessary to excavate to create a stepped site for the proposed development and the layout and arrangement of buildings has been designed to accord with the nature of the site, the need to create suitable sized areas for different activities and the need for all accesses to be of an appropriate gradient for access by HGVs, cars and also pedestrians from the main factory site, which accords with access for the disabled requirements. Another factor in the eventual layout has been the consideration to site buildings to minimise their visual and landscape impact, for suitable landscaping and to mitigate for loss of an intermittent line of trees across the site.

3.3.3 The floorspace of the proposed buildings is as follows:

Bio-diesel production		826m^2
Bio-diesel material pre treatment plant		826m^2
Renewable Energy Power Generation Unit		826m^2
Category 1 and 2 Meal Store together with vehicle and plant/maintenance workshops		3932m^2
Category 3 Meal Store and secure package food store		2571m^2
Electricity sub-station		37m^2
	Total	**9018m^2**

3.4 Access

3.4.1 Access to the ERC site will be via an extension to the internal access route within the adjoining rendering factory. This route passes the security point at the eastern end of Felthouse Lane and then allows for transport to pass the rendering factory, but without

entering its immediate environs, then pass the trailer yard and bio-filter beds to the ERC site, entering it at the south west corner. Internal access is as illustrated on the submitted drawing No. 1192-10H Rev B, a not to scale copy of this plan is appended at D.

3.4.2 Access to the main factory site is via Felthouse Lane which it is intended to divert at its western end to form an improved and safer junction with Cheadle Road (A520). This access route is generally indicated on drawing No. 1192-13M Rev C which is appended at A.

3.5 Scale and Landscaping

3.5.1 The individual buildings are, as indicated, of fairly substantial scale in terms of floorspace. The proposed buildings are large enough to accommodate not only their individual functions but also the need for heavy goods trailer vehicles to be able to raise the trailer to full height for off-loading, and for vehicles to be able to stand under machinery which will load material or products into such vehicles. Consequently, the general height of the tallest buildings is 10m to the eaves and 14m to the ridgeline.

3.5.2 In addition to the buildings there is also the need for various items of external plant. These primarily consist of silos for storage of tallow to be processed in the bio-diesel production unit, chemicals, end product of bio-diesel and residual products, and also for containment of fuel for the electricity generating plant. The number and size of the tanks or silos needs to be specifically determined but it is expected that there will be bunded "tank farms" with several tanks with an individual capacity of approximately 500 tonnes and 10m in height and 4m in diameter. Condensers will also be required in association with the electricity generating plant. The proposed location as illustrated on plan No. 1192-10H Rev B, is between the electricity generating building and the access road into the ERC and the backdrop of the Category 1/2 plant to the rear, where this much smaller plant would be largely hidden from view.

3.5.3 A chimney is required in association with the electricity generating plant. Following an air dispersal assessment, and having regard to existing emissions from the adjoining rendering factory site, a chimney height of 30m is required with an overall diameter, including lagging, of 3.3m.

3.5.4 As noted previously, however, all these buildings are on a site which steps down from its south western end towards the north east and all these buildings, and associated plant and the 30m chimney would been seen in the context of the existing plant with its similarly substantial buildings and existing two chimneys.

3.5.5 The proposal includes for extensive bunding and landscaping around the site which provides for containment and visual mitigation. The bunding will also use some of the material which needs to be cut from the site to create the appropriate levels. Other cut material is to be used in the formation of the embankment linking the proposed new access road onto Cheadle Road with the eastern end of Felthouse Lane and also with extensive additional bunding and landscaping around the Community Recreational Facilities.

3.5.6 The landscaping proposed is a substantial belt of tree planting, utilising indigenous species, with appropriate undergrowth of bushes which will primarily be located on the proposed bunds which will raise the height of the initial planting and thus assist in its mitigation of the visual impact of the proposed development. Drawing No. 1192-10H Rev B illustrates the location of the planting proposed within the site; detailed proposals will be worked up in association with the local planning authority and it is expected that a scheme of planting will be the subject of a planning condition.

3.5.7 Additionally, a Landscape Masterplan has been prepared (see section on Landscape Impact and Visual Assessment) and it is intended to extend tree planting into adjoining areas of land owned by the applicant Company but which do not form part of the planning application. The Company has undertaken extensive planting on land in its ownership but outside of the existing factory site. That planting, which now extends to in excess of 41,000 trees, is helping mitigate the existing visual impact of

the factory as well as providing a better landscape setting for it. The intention is that the further proposed planting as indicated with the Landscape Masterplan will contribute to this overall visual mitigation and specifically, the impact and setting of the ERC development.

3.5.8 The application site includes the fields immediately to the north of the site of the proposed ERC. The Landscape Masterplan (Rev C) illustrates how this area of land which is primarily intended to be part of the Sustainable Urban Drainage System to attenuate excess surface water run-off in circumstances of an extreme rainfall event will be treated. This has provided the opportunity for further planting, as well as the works associated with the surface water run-off attenuation, and includes a pond and intended improvements to the grassland.

3.5.9 It is intended to develop a phasing programme for the development with the structural bunding and landscaping being undertaken in advance of the main development programme – this will allow the landscaping to get a head-start and assist in reducing the visual impact as quickly as possible.

4. DATA REQUIRED

4.1 A formal scoping exercise of the matters to be the subject of environmental impact assessment and contained within the ES has not been conducted. However, an informal exercise has been undertaken in consultation with officers of the local planning authority. It was determined that apart from a Planning Statement including Design and Access Statements and all relevant consideration of planning policies and justification for the proposed development within the green belt, the following matters should be assessed:

- Traffic, and particularly heavy goods vehicle movements
- Landscape Impact and Visual Assessment
- Impact upon Ecology, Bio-Diversity and Nature Conservation
- A Flood Risk Assessment of the site and also an assessment of the potential of the development of the site to cause flooding resulting from Surface Water run-off
- Proposals to reduce the potential for Light Pollution
- An assessment of the impact of Emissions to Air resulting from the proposed renewable energy generation plant and the cumulative impact with existing emissions from the adjoining factory
- Noise Impact Assessment – though it had been previously agreed as part of the informal scoping exercise that a noise assessment would not be necessary, a study has been carried out and forms part of this ES
- A ground and soil contamination assessment, including trial boreholes and pits; this has been restricted to the area of Beresford's (part of the CRF area of the site) as the only part of the site which is known to have been previously developed.

4.2 Documents Submitted with the Planning Application

The following documents form part of the Planning Application:

- Planning application forms and Certificates
- Planning Statement incorporating Design and Access Statements
- The following plans:

2003-1192-13M Rev C	Location plan, illustrating areas edged red subject of the application and other land edged blue in the control of the Applicant
2003-1192-10H Rev B	Energy Resource Centre, Site Plan
2003-1192-11C Rev A	Energy Resource Centre, Site Sections
2003-1192-14B Rev B	Community Recreational Facilities, Changing Rooms Plan and Elevations
2003-1192-15	Listed Barn Survey
2003-1192-16D Rev F	Community Recreational Facilities, Access Road and Site Plan
2003-1192-17A Rev A	Energy Resource Centre, Category 1/2 Meal Store and Vehicle and Plant Maintenance Workshops
2003-1192-18A Rev A	Energy Resource Centre, Bio Diesel Production Unit and Silos
2003-1192-19A Rev B	Community Recreational Facilities, Site and Road Sections
2003-1192-20A Rev A	Energy Resource Centre, Renewable Energy Power Generation Plant
2003-1192-21A	Energy Resource Centre, Category 3 Meal Store and Secure Store
2003-1192-22 Rev A	Listed Barn Proposal
2003-1192-25D	Recreation Area Access Road Layout

2003-1192-26 Recreation Area Access Road Details

2003-1192-27 Existing Conditions, Location Plan

- The Environmental Statement includes the following documents – they are also part of the planning application:

    - Traffic Statement
    - Landscape Impact and Visual Assessment
    - Ecology, Bio-Diversity and Nature Conservation
    - Flood Risk Assessment and Surface Water Drainage
    - Light Pollution
    - Air Quality and Air Dispersal Modelling Report
    - Noise Impact Assessment
    - Preliminary Contaminated Land Assessment

- The Planning Statement is also referred to within the Environmental Statement and is deemed to form part of the supporting documentation to this Environmental Statement.

5. THE REGULATORY REGIME

5.1 There are two primary regulating controls on the operation of rendering plants and associated plant and equipment, which the ERC development constitutes. Firstly, there are controls under the Animal By-Product Regulations, specifically a European Regulation. Secondly, the operation of a rendering plant and also the operation of certain large scale combustions facilities either on their own or in association with other certain types of operations, are prescribed for "permitting" under the Pollution Prevention and Control Regulations.

5.2 Animal By-Products Regulations

5.2.1 The handling, storage and processing of animal by-products and the subsequent use or disposal of products derived from rendering is regulated under European Union Regulation 1774/2002, as amended, The Animal By-Product Regulations (ABPR). This is directly imported into UK Law; the Animal By-Product Regulations, 2005, is simply the direct licensing regulation which particularly provides the penalties for not operating with a license and certain testing regimes. The primary aim of the EU Animal By-Products licensing regime is animal health and bio-security; these Regulations became more stringent and prescriptive in the light of the BSE crisis and other animal disease problems.

5.2.2 The ABPR specifically licenses the type and Category (or Categories) of material and will reflect the specific mode of operation and processing method for that material. This regulation provides for regular inspection, including of specific plant, by DEFRA officials and continuous records of processing and material, and the almost permanent presence on site at some major plants of Meat and Livestock Commission personnel who check on incoming material in particular, with certain categories of material colour stained to ensure that it is kept separate from other material or potentially not treated at all and sent elsewhere.

5.3 Pollution Prevention and Control Regulations

5.3.1 The operation of a rendering plant and directly associated activities, such as combustion plant, are prescribed for control ("permitting") under the Pollution Prevention and Control Act, 1999, and the PPC Regulations, 2000, as amended.

5.3.2 Rendering was a prescribed process under The Environmental Protection (Prescribed Substances) Regulations 1991 for air pollution control under the Environmental Protection Act, 2000. This control, which was aimed at eliminating or at least minimising malodorous emissions to air which might be harmful to people or the environment, has been primarily exercised by local authorities who were the authorised "enforcing authority" for this purpose; there are certain circumstances in which the enforcing authority would be the Environment Agency. The control ("Authorisation") under the Act and Regulations remains in force and in operation at certain plants which have yet to receive their Permits under IPPC. Specific guidance has been issued by DEFRA, and also non-statutory guidance by the Environment Agency, to assist in the licensing and control of prescribed operations under both the Environmental Protection Act and IPPC.

5.3.4 Integrated Pollution Prevention and Control (IPPC) was brought in under the auspices of European legislation. IPPC is a more extensive regulatory regime dealing not only with air pollution control but other potential pollution, that is to land and water. All existing prescribed operations, including rendering, are required to improve their operations to meet this comprehensive pollution protection regime. While the local authority is primarily the licensing and enforcing authority for the rendering industry, the Environment Agency may be the competent authority in certain instances; the EA is the licensing and enforcing agency for most Part A(1) prescribed processes, while rendering is usually classified under Part A(2).

5.3.5 Transition from Authorisation under the EPA to Permitting under IPPC for the rendering industry is still in progress. However, John Pointon and Sons Limited have been issued with a Permit under IPPC. The Regulator is the Enforcement Agency as

it was deemed that the size of the overall rendering plant which includes installed power generating capacity in excess of 50MW, meant that it would fall within a Part A(1) process and thus fall for regulation by the Agency.

5.3.6 John Pointon and Sons Limited's Permit is ref No. BK00861Y. It was issued on 3rd October, 2006. The prescribed process licensed for operation under IPPC includes for the production of bio-diesel and also the export of electrical energy. The plan appended at B illustrated the defined Installation boundary, which includes the land proposed for the Energy Resource Centre.

5.3.7 Consequently, the Company in applying for a Permit under IPPC, and the Agency in reviewing and granting that Permit, have had to specifically consider the potential polluting effects of establishing the processes of bio-diesel production and of electricity generation, as intended to be contained with the ERC, and the Agency has determined that these can be carried out without unacceptable impacts upon the environment or environmental media.

5.3.8 Though the Permit provides for the operation of a bio-diesel production and energy electricity generating plants, their location or physical extent is not defined within the Permit. The defined Installation of the rendering plant and associated activities is, however, extensive and includes the site area of the proposed ERC; there will not, therefore, be the need for any alteration to the Permit to enable the proposed prescribed elements of the ERC to be operated.

5.3.9 It is important to note that not only has an IPPC Permit been issued to John Pointon and Sons Limited but also that it includes the proposals for bio-diesel production and electricity generating plant, as Government planning guidance under PPS23 and PPS10 indicate that the planning regime should not seek to replicate or deal with matters which are primarily covered under other legislation. Specifically, in the case of pollution control matters the primary legislation is under IPPC and the issuing of the Permit under IPPC is specific confirmation that the operation of such plant is environmentally acceptable.

5.3.10 It is a basic precept of IPPC that the operation of the process permitted under the Regulations operates Best Available Technique (BAT). BAT requires operation to best accepted industry levels, which also assumes that those businesses will be able to operate viably. For new plants it is a requirement that they are BAT compliant from the outset, whereas for an existing prescribed processes it is expected that they already operate to the standards required under the Environmental Protection Act and Authorisation under that Act but that there will be a phased implementation of improvements to achieve BAT compliance within a specified timescale. The proposal to operate both the bio-diesel production and electricity generating plant from renewable energy fuel are required to be BAT compliant from the outset.

6. SUSTAINABLE DEVELOPMENT - Best Practicable Environmental Option

6.1 This Section concerns the approach adopted by the applicant to the better use of its products, within the statutory regulatory regime, which achieves more sustainable development and use of those products.

6.2 Best Practicable Environmental Option (BPEO) is an appropriate tool for considering sustainability. It has been defined by the Royal Commission on Environmental Pollution as:

> *"the outcome of a systematic consultative and decision making procedure which emphasises the protection and conservation of the environment across land, air and water. The BPEO procedure establishes, for a given set of objectives, the option that provides the most benefits, or the least damage, to the environment as a whole, at acceptable costs, in the long term as well as in the short term".*

It does not form part of the case for the development that the proposed development necessarily represents BPEO – at present what would be considered BPEO in this industry is not defined and may change in the light of impending changes in the use of Meat and Bone Meal and Processed Animal Protein, in particular. It is considered, however, that within the present regulatory regime, and having regard to the thinking within the industry, that the ERC part of the overall development does represent a considerable betterment over the existing situation in terms of use of products and their transportation and that considerable benefits flow from the proposals which will result in less damage to the environment, as a whole, both in the long-term and short-term.

6.3 BPEO underpins the Government's vision of sustainable waste management which is outlined in the Government's National Waste Strategy; a recent consultative update to the Waste Strategy was published in 2007. The three further principles of the waste hierarchy, the proximity principle and self-sufficiency/regional self-sufficiency

support BPEO. The Government considers that the burning of tallow as a fuel in the company's boilers and thermal oxidisers is a co-incineration process and that the tallow is being burnt as a "waste". Consequently, the Permit issued under IPPC by the Environment Agency makes reference to this in the Introductory Note and within the Permit itself as a form of fuel, subject to a certain specification, but also requires a review of how the IPPC Sector Guidance on "Combustion Activities" will be addressed, implemented and the timetable for implementation; this condition in effect requires the cessation of the use of a "waste" as a fuel in non-WID compliant boilers. There is, therefore, an impetus within the IPPC Permit for the Company to review the continued use of tallow as a fuel.

6.4 Additionally, as noted earlier, the Regulatory regime is now more stable and the industry as a whole is looking to make better use of its products. While some MBM is likely to go back into the feed industry, large amounts of MBM (Category 1 and 2) are either in-store or have been disposed of to landfill (where material has been sterilised). MBM is now being used as a substitute fuel either in power stations or cement kilns and there is also a move towards using it directly at rendering plants in order to raise steam for the rendering process or in order to drive electricity generating turbines. In this way, better use will be made of this material which otherwise is disposed of or is pending disposal. While Category 1/2 tallow has been used as a fuel, the statutory requirement to end its use as a fuel in non-WID compliant boilers means that the "disposal" of such tallow in this way is forecast to end.

6.5 In respect of the ERC Plant, the recovery of tallow for the production of electricity in WID compliant plant represents an improvement in terms of the waste hierarchy. Similarly, the "re-use" of tallow (a "waste" product) for the production of bio-diesel also represents an improvement in terms of the waste hierarchy. It is not possible to improve further in terms of the waste hierarchy as it is not possible to "reduce" the amount of tallow (as a waste), as this is one of the products of the treatment of animal by-products.

6.6 The proximity principle, as a further underpinning principle of the Government's National Waste Strategy, also applies in this instance. John Pointon and Sons Limited requires large amounts of electrical energy which the proposed renewable energy electricity generating plant will provide, while also providing surplus power to raise steam for use in the rendering plant, which itself will then reduce the amount of tallow or other fuel being burnt in the boilers or thermal oxidisers to raise steam. While the generation of electricity could take place elsewhere, that would not then allow for the immediate use of tallow produced by the plant and thus the proximity principle in terms of dealing with "waste" would not be adhered to. Additionally, the electricity generating plant must be on site if the surplus energy produced by the plant is to be recovered and used to raise steam which can then be used by the rendering plant and substitute for power being separately generated to raise steam in the main boilers and thermal oxidisers.

6.7 The proximity principle also applies in respect of the bio-diesel production unit. The tallow to be used in the plant is produced at the adjoining rendering factory site. As a "waste" it should be dealt with as close as possible to the point of production. It is also a logical approach which will reduce the need for transportation off-site of tallow and residual products and potentially some of the bio-diesel itself may be used to supplement tallow being used as the fuel for the generation of electricity.

6.8 Thirdly, there is the self-sufficiency principle underlying the Waste Strategy. The Waste Strategy is usually viewed in terms of ensuring that where waste arises it is dealt with within the locality and certainly the region so that there is no necessity to export waste from region to region for treatment or disposal. This approach to self-sufficiency is not appropriate in terms of the current proposal. However, it is appropriate as a principle in terms of reducing reliance on mineral and fossil fuels, which to a large degree are imported. The production of bio-diesel and electricity from renewable energy sources, which is "home grown" in this instance, promotes self-sufficiency in a national sense as well as achieving the Government's aims of

substituting renewable energy fuels for fossil derived ones and redacting carbon emissions.

6.9 Applying BPEO and the "Waste Strategy" to the material or products to be handled or produced in the ERC is not straightforward or obvious given the nature of the material being dealt with, that is tallow. However, "waste" is a definition of law and what might appear to be an extremely useful and beneficial fuel – which it is – is also deemed to be a "waste" and as a consequence it is appropriate to apply the principles and objectives of the Waste Strategy and seek to achieve better use of the material which furthers those principles and objectives, and which aims towards towards BPEO.

7. POTENTIAL SIGNIFICANT ADVERSE EFFECTS

7.1 The previous Section 4, Data Required, identifies the information that was agreed should be the subject of environmental impact assessment. Each of those reports are summarised in the following sub-sections with commentary as to whether the effects identified are significant, beneficial or harmful and, where they are harmful, what steps are being taken to amend the scheme to reduce the impact and/or introduce mitigating measures.

7.2 Traffic Assessment

7.2.1 A Transport Statement has been produced by Singleton Clamp and Partners, Consulting Engineers and Transportation Planners, which forms part of the planning application submission. This demonstrates that there will be little impact from the proposed development during the normal peak hours and that the proposed development is acceptable in highway terms.

7.2.2 The Transport Statement concentrates upon the impact of traffic during peak hours and also the proposed diversion of the western end of Felthouse Lane and a new junction with Cheadle Road (A520); the road diversion and new junction represent a significant highway safety improvement over the existing situation. In terms of peak hour movements, the report notes that 50 or so new jobs are to be created over a period of three years which, based upon accepted TRICS data, would generate around 64 additional car movements per day. Due to the three shift systems operated at the rendering plant, which would be extended to include operation of the ERC development, spread over 7 days it is calculated that there would be no conflict with peak hour traffic movements. Consequently, in terms of the usual assessment of traffic, there will be no adverse effect arising from new commuter car movements as the additional traffic can be more than adequately accommodated on the highway system, so the proposed development will not lead to an increase in congestion during peak hours and will not jeopardise highway safety.

7.2.3 Singleton Clamp and Partners have also produced a Technical Note which has specifically reviewed heavy goods vehicle movements. That Technical Note is enclosed with a commentary within the Planning Statement and a copy is also appended to this Environmental Statement at E.

7.2.4 The substance of the Technical Note can be summarised as follows:

Some additional HGV movements will result from the possible need in the short term to import some Category 1 tallow. However, as illustrated in the table at 4.2 of the Technical Note (reproduced below) there are considerable reductions in movements of off-site transhipment to stores. The overall effect is that there is a considerable net reduction in the movements of heavy goods vehicles.

Reason for HGV Traffic Reduction/Increase	**Associated Weekly Traffic Movements (Two-Way)**
Net increase in Tallow Import (400T where 1 HGV holds 25T)	+32 HGVs
Reduction due to Energy Plant Consumption	-50 HGVs
Reduction in Category 3 Meat and Bone Meal Traffic Movements (removal of off-site storage/treatment due to new development)	-54 HGVs
Packaged Pet Food (removal of off-site storage due to new development)	-30 HGVs
Reduction in Need to Store Trailers Off-site (due to existing Section 52 Agreement on Felthouse Lane)	-76 HGVs
Reduction in Movements to Countryside Store Associated with Castle Cement	-84 HGVs
Total net HGV Reduction :	**-262 HGVs**

7.2.5 In due course, the impact of the ERC development should reduce HGV movements further, with the recovery of heat from the renewable energy generating plant to raise steam for use in the rendering plant substituting for steam and energy from the

existing power plants, resulting in the envisaged reduction or ending of tallow importation.

7.2.6 It is concluded, therefore, that in terms of traffic likely to be generated by the proposed development of the ERC, there will be little impact in relation to traffic resulting from new employees, which can be safely accommodated on the highway network without adding to congestion. Further, the proposed diversion of the western end of Felthouse Land and the new junction with Cheadle Road will be a considerable improvement in highway safety terms over the existing arrangements; it is noted that this part of the planning application proposals does not form part of the EIA part which is the Energy Resource Centre. Further work and investigation has assessed the impact of heavy goods vehicle movements and it is concluded that the proposed development will have a significant effect in reducing the numbers of such traffic movements on and off site. This will reduce further in due course when tallow importation should reduce.

7.2.7 Overall, it can be concluded that in traffic and highway terms, the proposed development of the ERC will have a beneficial effect and, together with the new junction and road proposal for Felthouse Lane will have an overall significantly beneficial effect.

7.3 Landscape and Visual Impact

7.3.1 The Appleton Group, Landscape Architects, have produced a full report assessing the visual and landscape impact of the proposed development and, in particular, the proposed Energy Resource Centre scheme where a number of large buildings, together with a chimney, are proposed.

7.3.2 A review of National, Regional and Local Planning policies related to landscape and the environment generally was undertaken and in addition landscape policies specific to the site and its environs were identified. The history in land use and landscape terms of the site was researched. A search for landscape character assessments on

both a regional and local basis was made. Staffordshire Moorlands District Council was contacted in respect of Tree Preservation Orders and Conservation Area status, neither of which applies to the proposed site.

7.3.3 Mapping of both a local and a wider area was obtained in order to evaluate topography, vegetation and land use and to identify public rights of way and potential viewpoints into the site. Aerial Photographs were also obtained to supplement the mapping. The land-use both within and adjacent to the site was plotted from Ordnance Survey maps and air photographs.

7.3.4 Field studies were undertaken in autumn/winter 2006 to verify and supplement desk top information and a photographic survey of views into the site and its surroundings was undertaken using a camera with a 50mm focal length, which is that closest to the human eye. At the time at which the surveys were carried out there were no visual limitations as the screening potential of vegetation was minimal as most species were devoid of their leaves. Principal, representative public vantage points were identified, adjacent land-uses verified, viewpoints towards and into the site recorded (public and potential private) and a zone of visual influence determined. 'Sensitive' receptors were identified.

7.3.5 Having made a baseline assessment, with regard to the above together with the relevant policy considerations from national guidance, Structure and Local Plans, an assessment of visual amenity was made. Views from the edge of the Peak District National Park are a minimum distance of 7 km from the ERC site. From there the existing plant is barely perceivable due to the distance, the large expansive views available and the general context in which the site is located. Occasional plumes at intermittent intervals from existing plant are noticeable – the proposed chimney to be incorporated in the ERC development would not give rise to a plume. Other long distance views of the area and the existing plant are possible from the north east and east but these are only partial views. From the south vegetation frequently obscures views. From the west, long distance views are perceivable but not highly visible due to topography, distance and vegetation.

7.3.6 A similar assessment was made of middle distance views from where vegetation is a more important aspect but where distance from the existing plant and the site of the ERC is less determinative of visibility. The most prominent view is from the public footpath which runs parallel to the site of the ERC along its eastern boundary and from where existing plant is also prominent in view.

7.3.7 The construction of the proposed ERC development would result in the loss of a 200m length of dry stone wall and tree/hedgerow planting which cumulatively will result in a **moderate adverse** impact, due to the direct loss of the landscape element and impacts in character terms. The removal of existing stone posts will also result in a **negligible adverse** impact in character and landscape resource terms. The loss of the pasture grassland of the ERC site (this area is no longer in pasture use) is anticipated to have a **negligible adverse** impact.

7.3.8 Visual amenity of users and views during the construction phase were also assessed from the adjoining footpath which would initially be a temporary impact of **moderate adverse** significance, reducing to **minor adverse** due to the formation of planted screen mounds during the early stages of the construction process. The effect of views from the national park would have a **negligible adverse** impact of a temporary nature, and on the private properties a temporary **moderate adverse** impact reducing as planting matures to **minor adverse**. Overall, in terms of local landscape character, it is considered that the proposal would have a temporary **moderate adverse** impact.

7.3.9 A summary of the residual significance of the impacts is contained in the table below:

Table 1: Landscape and Visual Residual Impacts

CONSTRUCTION PHASE		**OPERATIONAL PHASE**	
Impact	Significance	Impact	Significance
Loss of vegetation within Area B	Minor Adverse	Landscape proposals for Areas A, B and C	Moderate beneficial
Removal of Dry Stone Wall and Tree Planting within Area A	Moderate Adverse	Visual Amenity of Users of Footpath adjacent to Area A	Minor beneficial
Removal of stone posts in Area A	Negligible Adverse	Middle Distance Views of the Proposed E.R.C from the North (Cheddleton)	Minor Adverse
Loss of pasture Grassland in Area A	Negligible Adverse	Middle Distance Views of the Proposed E.R.C from the South West (Footpath)	Minor Adverse
Visual Amenity of Users of Cheadle Road	Moderate beneficial	Visual Amenity of Users of Cheadle Road	Moderate Beneficial
Visual Amenity of Users of Footpath adjacent to Area A	Minor Adverse	Listed Building in Area B	Moderate Beneficial
Viewpoint from the National Park	Negligible Adverse	Local Landscape Character	Moderate Beneficial
Visual Amenity of adjacent Private Properties	Minor Adverse	Night-time Impacts of the Proposed Community and Recreational Facilities	Minor Adverse
Local Landscape Character	Moderate Adverse		

7.3.10 Following the initial report of The Appleton Group, the information was reviewed by the applicant Company and its advisors and The Appleton Group were commissioned to prepare a Landscape Masterplan to further enhance the mitigation measures proposed in their original report. The details of the Landscape Masterplan are given within their report, which forms part of this Environmental Statement, and a copy of the Landscape Masterplan, drawing No. 1521/02C, is appended at F to the ES. This is

a revised Landscape Masterplan taking account of the extended application site to include the area of land to be used for a Sustainable Urban Drainage Scheme.

7.3.11 It is considered that during the operational phase by incorporating the planting proposed within the Landscape Masterplan, which extends to adjoining areas of land beyond the ERC site but within the land under the control of the applicant, the proposals will amount to a **moderately beneficial** impact upon this landscape area given its current character assessment which is described by Staffordshire County Council as "deteriorating". Additionally, it will be an improvement to the visual amenity of users of the adjoining footpath, aiding in the assimilation of views of existing industrial features, and amount to a **minor beneficial** impact; long distance views from the Peak District National Park will be **unperceivable** with middle distance views from the north and south west being **minor adverse.**

7.3.12 The assessment undertaken by The Appleton Group also refers to potential night time impacts as the ERC would be operating 24 hours a day. However, the issue of light pollution and consequent visibility within the locality has been considered in advance and a separate report prepared by Clancy Consulting to which reference is made later in this ES.

7.3.13 The zone of visual influence of the proposals has been assessed and it is considered that the proposed scheme would not extend the current area from which the existing plant may be visible, while the mitigation measures proposed will be beneficial.

7.3.14 The overall conclusion is that with the mitigation suggested together with the Landscape Masterplan, the proposals will not have an overall significant adverse impact in landscape and visual amenity terms. Rather, there will be beneficial impacts in landscape resource and character terms and also to the amenity of footpath users on the eastern boundary of the ERC site from where there are prominent views of the existing plant.

7.4 Ecology, Bio-Diversity and Nature Conservation

7.4.1 Habitat surveys have been undertaken by Environmental Research and Advisory Partnership and their detailed report forms part of the submission and ES.

7.4.2 The pastures of the site of the Energy Resource Centre are species-poor and unimportant, as are the surrounding pastures and associated hedgerows. There are no species-rich, ancient or important hedgerows in terms of the Regulations' criteria.

7.4.3 The adjacent and nearby plantation woodlands have low ecological value but parts of Felthouse Wood and Parkhouse Wood in the east are semi-natural broadleaf woodland and are Habitats of Principal Importance.

7.4.4 Of local importance is the field pond (Pond 1). The pond has been colonised by a good-sized population of Smooth Newt with breeding Common Frog and Common Toad. The detection of one Great Crested Newt (male) in May 2007 indicates attempted colonisation and possible breeding by this European-protected species, and Species of Principal Importance.

7.4.5 None of the trees within the proposed development site contains bat roosts and there is no evidence of other protected species.

7.4.6 There is nothing of substantive ecological importance within the ERC site or in close proximity to the site.

7.4.7 The proposed ERC development would result in the loss of agricultural, improved grassland and trees, all of which are of minor value with no evidence of bat roosts. Nothing of substantive importance would be affected within the site or nearby.

7.4.8 The report and assessment undertaken by Environmental Research and Advisory Partnership reviewed both the ERC site and that of the proposed Community Recreational Facilities. An overall table summarising the habitat and vegetation losses for the two development sites combined is given below:

Table 2: Habitat and Vegetation Losses, ERC and CRF sites

Habitat/vegetation lost	Number lost	Area of habitat lost
Buildings and hard-standing	9 buildings	0.88 hectare
Improved grassland	4 fields	5.58 hectares
Mosaic vegetation	1 area	0.6 hectare
Hedgerows	2 hedgerows	180 linear metres
Trees	42	N/A

7.4.9 There will be no significant disturbance to wildlife outside the construction areas due to noise, machinery and personnel movements because wildlife will habituate to disturbance arising from fixed areas.

7.4.10 The proposed woodland planting north-east of the proposed Energy Resource Centre and along the proposed new access road route (see submitted plans with Planning Application and Landscape Masterplan referred to above) will increase the amount of broadleaf woodland at the site. This will be planted to native species and allowed to develop as semi-natural broadleaf woodland habitat.

7.4.11 The possible impacts on the Great Crested Newt, a species that has been recorded in the pond 250 metres from the proposed Energy Resource Centre, have been given very careful consideration because of its European as well as U.K. protected species status. It has been concluded that there will be negligible impacts on Great Crested Newts but the situation may change if colonisation of the pond by Great Crested Newts continues, increases and a viable and increasing population is established.

7.4.12 Newt mitigation and a Great Crested Newt Mitigation Licence from Natural England may be required and further investigation will be carried out before construction of the Energy Resource Centre. However, the incorporation of the land to the north of the ERC for SuDS has provided an opportunity to create a pond which could be colonised by the species, together with grassland enrichment and planting, allowing for greater bio-diversity.

7.4.13 Further Bat Surveys, together with a Barn Owl Survey, was conducted on a day in April and June, 2008 by Middlemarch Environmental Limited. This supplements the previous Bat Survey undertaken by Martin Prescott Environmental Services which is Appendix 2 to the Ecological Survey and Assessment prepared by Environmental Research and Advisory Partnership. In terms of Barn Owls, the surveys undertaken found no signs of the species using the surveyed buildings, which were deemed to be of low potential to support nesting birds. However, the local area surveyed provides suitable Barn Owl foraging habitats. It is known that a breeding pair of Barn Owls nest at Felthouse Farm buildings nearby, but external to the application site. With regards to Bats, no evidence of roosting Bats was found though there was evidence of droppings within part of the former Beresford's bus garage building. A number of the buildings and trees within the surveyed areas were considered to be suitable for providing Bat roosts and the locality provides appropriate foraging areas. Recommendations are made similar to the previous Bat Survey including retaining boundary features as far a possible for foraging, and further surveys, notably at night.

7.4.14 In conclusion, the proposed development will not cause significant damage to the ecology and biodiversity of the site and the surrounding area provided that the recommended mitigation and compensation are implemented in full.

7.4.15 The proposed development, given the implementation of the proposed mitigation of construction and operational impacts, will be in accord with UK Government guidance on wildlife conservation as set out in Planning Policy Statement 9: Biodiversity and Geological Conservation (PPS9). There will be an increase in

biodiversity as a result of woodland development and continued colonisation by Great Crested Newts and other amphibians of Pond 1 near the proposed Energy Resource Centre.

7.5 Flood Risk and Surface Water Drainage

7.5.1 A Flood Risk Assessment has been undertaken by Shepherd Gilmour Infrastructure Limited. Their full report forms part of this Environmental Statement.

7.5.2 Flood risk can be to the proposed development itself, due to the location of the site and its proximity to rivers, lakes which might over flow, the sea or in a position where it may be affected by surface water run-off, or the development may be the cause of flooding or contribute to it due to the built form exacerbating surface water run-off. The assessment undertaken by Shepherd Gilmour Infrastructure Limited has reviewed both aspects of flooding.

7.5.3 The Flood Risk Assessment has been undertaken in accordance with Planning Policy Statement 25 and has reviewed the location of the site against the Flood Zone Maps, prepared and maintained by the Environment Agency. The site lies within Flood Zone 1 where there is little to no risk of flooding; Zone 1 comprises land assessed to have a less than 1:1000 annual probability of river or sea flooding in any year. Sites within Zone 1 are not required to be the subject of a sequential test to determine whether or not there is a more appropriate site which is less at risk of flooding.

7.5.4 The proposed built form on this 4.3 hectare site will extend to almost 9000m^2 (excluding the electricity sub station), with the proposed access roads, service areas and car parking facilities being further hard surfaced areas extending to 14,000m^2. The total area, which will be hard surfaced, will, therefore, be approximately 23,000m^2; this represents 61% of the total site area. Drawing No C723/APP F appended to the full report prepared by Shepherd Gilmour Infrastructure Limited illustrates the extent of buildings, hard standing surfaces including roads and the landscaping areas.

7.5.5 It is intended that all storm water run-off which falls on the buildings will be collected for use within the plant and also the adjoining rendering factory. This clean and uncontaminated roof drainage water will be contained within a grey water drainage system(s). Utilising standard industry software, it is estimated that there would be 500m^3 of storm water run-off from buildings in a 1 in 100 year storm return event; this quantum is not included within the subsequently assessed amount of water which will need to be the subject of a Sustainable Drainage System (SUDS).

7.5.6 The volume of surface water flows from external hard surfaced areas in the event of a 1 in 100 year storm return period amounts to approximately 458 m^3. As a current green field site, formerly in agricultural use, an assessed normal run-off would be 6 l/s/ha/ from the ERC site; discharge from the developed site, under controlled or limited flow conditions, should not exceed this run-off rate. Consequently, a SUDS will be required to attenuate the surface water run-off.

7.5.7 A variety of storage retention facilities can be utilised within SUDS including oversized pipes or underground tanks. It is proposed to utilise the field immediately north of the ERC for SUDS. This includes two elements, the first being that of a pond. Construction of a pond or retention basin would be within the area immediately to the north and at a lower level than the ERC site. In drainage terms this would only require a basin of approximately 22 m^2 in surface area, assuming a working depth of 1000 mm and a freeboard 300 mm.

7.5.8 The second element is to use the land to the north of the ERC as a "wetland", which will involve some physical alterations to retain flood water by the construction of swales. The advantages of this combined approach to using this land for a Sustainable Urban Drainage Scheme is that there will be an improved grassland culture, more planting, and the encouragement of greater bio-diversity as referred to earlier.

7.5.9 Discharge from the SUDS would be into the local watercourse network or via the pipeline owned by the Company which goes from the water treatment plant to the River Churnet.

7.5.10 Following an initial pre-application submission of the EIA application and consultation thereon, porosity tests have been undertaken to establish whether or not the area of the proposed Community Recreational Facilities, together with new link-road, can be drained suitably by using soakaways. As noted in Addendum 1 to the Flood Risk Assessment undertaken by Shepherd Gilmour, the porosity testing has indicated that soakaways will not be a satisfactory or appropriate means of draining the CRF and this area of the application site. Consequently, it is proposed that excess surface water will be channelled to swales between the proposed new link-road and adjoining bunds, and then via an online pond directed and drained to a water course nearby. Plans appended to Addendum 1 illustrate where the porosity testing was undertaken and the proposals for drainage.

7.5.11 It is concluded that the site of the ERC is not at risk from flooding. It is further concluded that the development of the site should not exacerbate any flooding with the incorporation of the mitigation measures proposed, that is a Sustainable Urban Drainage System. Overall, therefore, there is no significant risk of flooding due to the development with the implementation of suitable attenuation measures as proposed; those mitigation measures may of themselves assist with bio-diversity and have a beneficial impact.

7.6 **Lighting – Designing out Pollution**

7.6.1 The Light Pollution Study has been prepared by Clancy Consulting. It is a precautionary report to provide an overall assessment of the potential for light pollution and to provide guidance at the outset for the design of lighting prior to implementation of any development. The full report forms part of the Environmental Statement.

7.6.2 The report relates to the Energy Resource Centre only – it is not intended to provide external lighting to the Community Recreational Facility. The assessment has taken account of the fact that the site of the ERC is to be surrounded by a bund with a dense perimeter of trees, except for the entrance to the site, and assumptions as to the height of those trees – this assumption is conservative at 3m tall when the final height of trees noted in the report is 5m and may be significantly higher as indicated in the Landscape Assessment and Visual Impact Study.

7.6.3 Initial consultation with local Environmental Health Inspectors was undertaken and there was no initial objection to the specific lighting levels being between 5 and 20 lux average across the site. This is commensurate with the nature of the area adjoining a large scale existing industrial plant but within a rural setting. This is assumed to be a "*Low district brightness or Rural small village location*", classified as Environmental Zone E2 in the report, which is drawn from guidance from the Institution of Lighting Engineers.

7.6.4 There is no specific guidance on the control of light pollution which may currently be regarded as a "nuisance" under common law but it is a matter specifically addressed in Planning Policy Guidance Note 23 (as referred to under the Building Regulations) and PPS23, which has now superseded it.

7.6.5 Light pollution is caused by badly designed lighting systems where the illumination is too strong, the lights are badly fitted or there is reflected artificial light due to the nature of the materials used in surfaces such as roads, pavements and buildings. This light pollution may be referred to as "light trespass" where it spills beyond the boundary of the property and thus may be intrusive, or "sky glow" resulting from the brightness of the light source when viewed against a dark background.

7.6.6 The report notes the effects of light pollution including the intrusion upon the landscape, the night sky, disruption to animal life and particularly birds, and also sleep disturbance to humans. Badly designed lighting systems are also wasteful of energy.

7.6.7 On the basis of the categorisation of the area as E2 and an average lighting level of between 5 and 20 lux, the area of the proposed development on the ERC site has been modelled and an isolux plot prepared; this plan is appendix A to that report. Based upon a generic lighting scheme in three dimensions in the context of the proposed scheme, including landscaping, a limiting upward light ratio of 5% or less can be achieved.

7.6.8 The report concludes that while the sky glow calculation indicates that some of the isolux plots are above those permitted or advised in an E2 area, this is based on a worst case approach and it is assumed that with the inclusion of appropriate construction materials the figure will be below the 2.5% limit.

7.6.9 Overall, it can be assessed that the potential impact of light pollution can be suitably attenuated to maintain it within acceptable and recognised limits. It is acknowledged that there is potentially a conflict between reducing artificial light and maintaining sufficient lighting for health and safety purposes. However, though the plant is proposed to work 24 hours a day, a number of the activities are self-regulating (for example the bio-diesel production unit) and most external activity will be during the daytime. It is anticipated, therefore, that it will be possible to ensure that the outturn design of the proposed development will incorporate a lighting system which will not result in light spillage or sky glow exceeding the recommended standards. As such, there will be no significant adverse effects resulting from lighting within the proposed development.

7.7 Air Quality and Air Dispersal Modelling

7.7.1 An assessment of the potential impact upon air quality has been undertaken by Enstec Services. Their report forms a part of this Environmental Statement.

7.7.2 The Air Quality and Air Dispersal Modelling Report has assessed not only the potential emissions from the proposed development, specifically the operation of the

renewable energy electricity generating plant, but also the cumulative impact of operating that plant together with the existing combustion plant on the main factory site.

7.7.3 The animal by-product rendering plant adjoining the ERC site requires the use of four boilers, primarily for steam generation, and two thermal oxidisers which are part of the odour abatement process, but are also used for the generation of power by the recovery of surplus energy. This plant was granted a Permit under IPPC in October 2006 – that Permit includes provision for upgrading the power generating plant. The upgrade includes the installation of a pilot plant running up to four 1,000 kVA engines (1MW) together with a proposed further four 5,000 kVA (5MW) engines, as well as the construction of additional bio-filter beds as part of the odour abatement system. The impact of those proposed changes and of the upgrade was examined by an Air Quality Study. That Study demonstrated that all existing and proposed existing emissions would be adequately dispersed using a new 20m stack for the pilot plant and utilising two spare flues within the existing boiler stack for the larger engines, providing that a stack of at least 25m was available for the emissions from the two thermal oxidisers. It was, therefore, planned to increase the height of the existing stacks serving the thermal oxidisers from 18m to 25m but which the Environment Agency, in granting a Permit, has required to be increased to 26m.

7.7.4 The proposal for the Energy Resource Centre includes the specific location of the proposed renewable energy electricity generating plant which will use four 5,000 kVA engines to burn tallow and, potentially, residual material from the bio-fuel production unit and potentially bio-fuels as a fuel source. These engines are those which were included within the Air Dispersal Modelling Assessment which formed part of the IPPC application made in 2006. However, it will not be possible for these engines to emit discharges as originally proposed via the two spare flues in the main chimney – a new stack is required. A revised Air Quality Study has, therefore, been conducted to examine the impact of emissions from this proposed new stack taken together with the other existing and proposed emission sources on the main rendering factory site.

7.7.5 The study was conducted using a similar approach to that employed in the earlier study. This involved the use of the ADMS3 dispersal model with 3 years worth of hourly sequential metrological data from Manchester Ringway for the period 2001-2003. Building and topographic effects were taken into account during the modelling. Sensitivity studies were also conducted to examine the effect of key model input parameters. These included the surface roughness length, metrological data and receptor spacing; generally a conservative approach was adopted.

7.7.6 For the purposes of the Air Dispersion Model, ground level concentrations were determined for all the pollutants emitted from the stack and, where relevant, they were compared with National Air Quality Objectives to ascertain whether there would be any breaches of these objectives. These concentrations were obtained over a 2km x 2km grid using a 51 x 51 grid size giving a resolution of 40m in each direction; sensitivity tests were conducted using a finer grid and this confirmed the findings from the runs using the coarse grid.

7.7.7 A stack height of 30 m was found to disperse all emissions from the four engines on the proposed ERC, even when all four boilers, the two thermal oxidisers and the four engines on the pilot plant were running at full load; this was based on a 25 m stack height for the thermal oxidisers, rather than 26 m. The 30m stack height for the renewable energy electricity generating plant has now been incorporated within the design of the ERC scheme and is part of the scheme assessed in the Landscape and Visual Impact Report. Tests were also conducted to examine the impact of increasing the height of the stack and also that serving the oxidisers but it was found that the 30m stack proposed for the ERC and at least a 25m stack for thermal oxidisers would adequately disperse all emissions such that there would be no adverse impact on air quality in the surrounding area.

7.7.8 The assessment was based on emission rates consistent with those for such sources. These are the same emission rates which were agreed with the Environment Agency during the preparation and conclusion of the previous study in connection with the

IPPC Permit application. These emissions are based on the presumption that the sulphur content of the fuel in all sources of emissions is no more than 0.1% by weight, as this is the fuel that is intended for use on the site. Although it is intended to use fuel with 0.1% sulphur, such as tallow, which is currently used in the main boilers on the rendering factory site, the Company needs to be able to use fuel with up to 1% of sulphur content due to the designation of tallow as a "waste" and the current requirement to end its use and utilise a fuel which is not "waste".

7.7.9 As a consequence of the foregoing, an assessment has been made of the effects of using fuel with 1% sulphur. The results indicate that any two of the four boilers can be operated without breaching Air Quality standards using fuel with 1% sulphur whilst running one oxidiser, one engine on the pilot plant and all four of the proposed engines in the renewable energy electricity generating plant utilising 0.1% sulphur fuel.

7.7.10 The Air Quality and Air Dispersal Modelling Report has assessed the likely impact of emissions from the renewable energy electricity generating plant upon air quality taking into account the emissions from existing and proposed sources on the main rendering plant adjoining the site of the ERC. It is concluded that none of the National Air Quality Standards are breached and that all plant can operate satisfactorily without adverse impact upon air quality when all these sources or potential sources of emissions are operating utilising 0.1% sulphur content fuel. This also assumes a minimum height of stack for the thermal oxidisers of 25m and also a new stack for the renewable energy plant on the ERC site of 30 m in height. This conclusion reflects not only current operations but also the intended operation of the plant. It is also concluded that it is also possible to run two of the main boilers on 1% sulphur fuel while running the rest on 0.1% sulphur fuel; this is a realistic scenario given the intention to recover surplus heat from the renewable energy plant which will then reduce the need for power from other sources to generate steam for the rendering plant.

7.7.11 It is concluded, therefore, that there is no significant adverse impact likely to arise from the operation of the proposed renewable energy electricity generating plant, whether on its own or in combination with existing and proposed power plants on the adjoining rendering site, as no National Air Quality Standards will be breached. This is based upon a 30m chimney, the design for which has now been incorporated within the scheme to the ERC site.

7.7.12 In response to queries raised in the pre-application submission, Enstec Services Limited have produced a brief supplementary report which concludes that the meteorological data from Manchester Ringway is the most appropriate as it provides a full set of parameters required by the air dispersion model. It also clarifies the use of background data in respect of the number of expected HGVs and local air quality. It is concluded, overall, that the modelling is robust and that further validation should not be required, the model being one of the advanced air dispersal models specifically recommended by DCLG and its predecessors.

7.8 Noise Assessment

7.8.1 A Noise Assessment Report has been undertaken by WSP Environmental UK; their report supports and forms part of this ES.

7.8.2 The assessment has reviewed the potential impact upon sensitive receptors of noise arising from use of the Community Recreational Facilities, the proposed new link access road and the Energy Resource Centre. The potential noise sensitive receptors have been identified. Background/ambient noise surveys have been undertaken at three locations, one to the rear of 439 Cheadle Road, between Cheadle Road and the proposed recreational facilities, one to the rear of No 54 Woodland Avenue, adjacent to Felthouse Lane and one adjacent to and on the east side of Willow Cottage. These surveys supplement surveys undertaken in April/ May 2006 by WSP Acoustics in connection with Pointon's Integrated Pollution Prevention and Control application.

Community Recreational Facilities

7.8.3 Source level noise surveys have been undertaken or where they already exist for typical individual facilities they have been utilised. The proposed skate park, under 9s Astroturf football pitch, 5 a side/multi-purpose court and grass football pitch have been identified as the primary significant noise sources and predictions of average noise levels and maximum noise levels have been made and assessed against existing noise levels without mitigation. The report notes that when all the proposed facilities are in use, then source levels are above the measured ambient noise levels which may result in a **moderate adverse** effect. However, "*it is considered that all of these facilities would only rarely be used simultaneously and that the levels presented in Table 12 represent very much a worst case*" (paragraph 5.2.5 of report).

Energy Resource Centre

7.8.4 Potential noise breakout from the buildings has been assessed. However, in all cases the predicted potential noise arising from these buildings would be less than measured background noise levels which is "*a positive indication that complaints are unlikely*" (paragraph 5.3.7 of report).

7.8.5 Predictions of noise from HGV manoeuvres has also been made which have establish that noise arising would not add to the existing ambient noise levels.

New Access Road

7.8.6 A review of the traffic flow data provided by Singleton Clamp and Partners has been undertaken. It was assumed that the level of HGV movements on the new access road would be the same as that on Felthouse Lane, though it is noted that traffic movements are expected to decrease. It should also be noted that in the event that the current Section 52 restriction on the use of Felthouse Lane is lifted then there will be fewer peaks of traffic movement and thus less noise arising from this source.

7.8.7 It is predicted that the receptor noise level changes would be imperceptible over existing measured noise levels along Cheadle Road during the daytime. Night time movements would result in a **minor adverse** change in average noise levels.

Maximum noise levels would, however, be less than existing measured noise levels. Taking account of the existing situation, it is noted that there is no significant impact which will arise from the new access road – bunds are proposed on both sides of the new access road to mitigate noise which might affect the rear of properties on Cheadle Road in particular. The report also notes that the intention to remove the existing storage use and operations at Staffordshire Farmers site, on the other side of Cheadle Road, will remove an existing noise source and be particularly beneficial to the two dwellings located immediately adjacent to that site.

7.8.8 Some further mitigation measures are proposed in the form of acoustic fencing between the car park and the recreational facilities and properties fronting Cheadle Road and within the landscaped area adjoining Felthouse Lane in the form of a close boarded fence. Overall, it is concluded that the proposals will not have an adverse impact upon noise sensitive receptors but will have some beneficial results.

7.9 Contaminated Land Assessment

7.9.1 A Preliminary Contamination Assessment Report has been prepared by Tony Gee and Partners which incorporates a Ground Investigation Report prepared by Structural Soils Limited. The report supports and forms part of this Environmental Statement.

7.9.2 The ground investigation has been undertaken using boreholes and trial pits, together with visual observation, in the area of the site known to have been previously developed and on which there are existing structures. This is the area of Beresford's former bus garage which forms part of the wider element of the site to be used for the proposed Community Recreational Facilities.

7.9.3 The Ground Investigation Report records the samples taken from boreholes and trial pits from around the site and the laboratory analysis undertaken. Six soil samples were tested for a range of metals and speciated PAH (components for diesel) to provide an overall view of possible contamination and three of these samples were

also tested for general hydrocarbons and for the Waste Acceptance Criteria suite in case off-site disposal of soil becomes necessary. Two samples were tested for PCBs.

7.9.4 Some contamination was shown to exist due to hydrocarbons but also showed, in respect of the sample at TP1, minimal vertical penetration. With the exception of lead found in the sample at TP1, the remaining metals testing and PCB testing of samples from around the site showed acceptable concentrations for a commercial/industrial site use.

7.9.5 It is concluded that the site investigation should be considered a preliminary study, and further investigation undertaken if there is to be intrusive works such as the construction and use of buildings in this area. However, the assessment is considered to be adequate for future site activities where there is to be minimal site disturbance, such as road building or landscaping. It will be noted that in the area of Beresford's that the proposals are limited to the construction of the new link road and landscaping works and that there will, therefore, be minimal site disturbance.

8. PLANNING ASSESSMENT

8.1 A review of the planning context, site selection and assessment of the proposed development as a whole, that is the Energy Resource Centre together with the Community Recreational Facilities and diverted Felthouse Lane, has been prepared by The Graham Bolton Planning Partnership Limited. That document stands alone as a supporting statement to the planning application but also is relevant and forms part of the Environmental Statement.

8.2 Community Consultation

8.2.1 The Company and its consultants engaged in extensive public consultation once the proposal had reached a cogent form. These were:

- An initial courtesy consultation and notification to Councillors prior to a public announcement
- Local notification of the proposed Open Day held at Cheddleton Community Centre
- Brochures circulated to local people illustrating the project
- Paid reply card enabling people to provide an initial response and raise questions
- Dedicated website illustrating the project and also providing an electronic response system
- Open day held on 26 March, 2007, at which there were displays, presentations, answers to the questions raised by people in the response cards and also on the day and personnel on hand to explain the project in full

A copy of the paid reply card/invitation to the Open Day is appended at B, together with the brochure at C, to the Planning Statement.

8.2.2 Local people and the Cheddleton Residents Action Group have responded to the notification, the brochure, the Open Day and website. The feedback has been positive though in some instances cautious pending the submission of the application.

8.2.3 The Company has responded to comments made in particular to the nature and scale of recreational facilities which it is seeking to provide on the Beresford's site. These proposals are now firmed up and the scheme submitted as part of the application illustrates what is proposed

8.2.4 The Company has sought to be open and transparent in its proposals. One of the reasons why the current application has two elements, rather than being two separate planning applications, is to demonstrate the inter-related nature of the two elements and that the one will not and cannot proceed without the other. This will be reinforced by a Section 106 Agreement with the Council which will ensure that the fears of some local people that the recreational facilities will not proceed or lag well behind will not be the case.

8.3 **Planning Policy**

8.3.1 The Planning Statement includes a review and assessment of Planning Policy at National, Regional, County and Local levels. Of particular note is the support given by Government in PPS22 to renewable energy projects including the specific advice that a sequential approach should not be applied to a consideration of such projects, which are frequently restricted to the proposed site and not capable of being developed elsewhere. This advice post-dates the policies within the current Regional Spatial Policy, the Joint Structure Plan and the Staffordshire Moorlands Local Plan.

8.3.2 Also of particular note is the location of the ERC site within the green belt and the consequential need to demonstrate very special circumstances for the "inappropriate development" of the ERC at this location. In the context of the nationally accepted and applied policy of restriction and restraint on inappropriate development in the green belt, PPS22 notes that the wider environmental benefits associated with the increased production of energy from renewable sources may be included as very special circumstances in justifying this form of development within the green belt.

8.3.3 A common feature throughout all policy guidance is the need to protect and conserve the landscape and habitats and to enhance, where possible, and not harm bio-diversity.

8.4 Alternative Sites

8.4.1 The EIA Regulations require an outline of the main alternatives studied by the applicant and an indication of the main reasons for the choice of the proposal taking into account the environmental effects. As far as site location is concerned, the Planning Statement notes that location of the ERC, and specifically the bio-diesel and electricity generation plant, are determined by the present location of the rendering plant which lies within the green belt. Tallow from the rendering plant will be pumped directly to the two proposed new plants with electricity generated by the new plant being fed back to the rendering factory and fuel for the electricity generating plant supplemented with residual products from bio-diesel production and even bio-diesel itself on occasion when demand requires or market conditions dictate. It is not, therefore, possible to relocate these proposals other than at a location where they can be directly fed with materials and their end "products" utilised directly.

8.4.2 While noting the above, the applicant has considered the alternative of utilising the site known as Beresford's close to the end of Felthouse Lane and fronting the Cheadle Road (A520). This site was originally allocated for industrial purposes and shown as a committed site within the Staffordshire Moorlands Local Plan following the grant of planning permission for general industrial use. The applicant Company has had long term intentions to construct a fats and tallow plant on this site but the current proposals incorporated within the ERC are too large and extensive to be located on this site, even as proposed to be extended to include the extent of the Community Recreational Facilities. However, it would be possible to develop elements of the ERC on this site alone but the Company considers that it would be inappropriate to do so.

8.4.3 Given the location and characteristics described above, and the extent of the ERC development which is an integrated scheme with the existing rendering plant, the

location of even one element of the ERC on this site would of itself have a greater environmental effect than the submitted proposal to locate all elements of the ERC on the site at the south eastern end of the rendering plant. The environmental effects at the Beresford's site location would be:

- the visual intrusion of large scale built form and
- the noise and disturbance arising from the 24 hour activity associated with any of the elements of the ERC.

8.4.4 Certain beneficial elements of the proposed scheme as whole would be foregone. These are:

- the opportunity to divert the western end of Felthouse Lane and create a new junction with Cheadle Road thus removing the disturbance away from occupiers of properties fronting Felthouse Lane and also creating a much safer junction onto Cheadle Road
- the removal of the opportunity to create more storage facilities and operating space adjoining the main factory site and thus enable the Staffordshire Farmer's site, opposite Beresford's, to be declared redundant and the buildings demolished and the land returned to an agricultural forestry or other rural use which will have environmental benefits in terms of visual amenity and removal of noise and disturbance.

8.4.5 It is concluded, therefore, that there are no reasonable alternative locations to that proposed. The site of the ERC development represents both a rational and logical decision, taking into the account the context of the proposed development, the location of the existing rendering plant, the environmental effects of developing the ERC site as opposed to Beresford's with only part of the ERC scheme, and the further benefits which then accrue from developing the proposed Energy Resource Centre as now intended and included within the Planning Application.

8.5 **Planning Conclusion**

8.5.1 The Planning Statement concludes that there are very special circumstances to allow for an exception to green belt control for the development of the proposed ERC site as proposed. This takes account of the policy context, the physical location of the current rendering plant, the environmental effects of developing the ERC site as proposed, and also conversely those resulting from developing the Beresford's site with industrial development, and the other related benefits which accrue from the overall scheme of development contained within the planning application which includes the Community Recreational Facilities, diversion of Felthouse Lane and a new junction with Cheadle Road and the removal of the intrusive and potentially noisy activities on the Staffordshire Farmer's site.

8.5.2 The Community Recreational Facilities form an integral part of the overall development proposed in the planning application. While these largely involve the use of land which has been previously developed, and allocated for industrial development and granted planning permission for that purpose, the proposed recreational facilities constitute an open use and, in as far as there is encroachment beyond the allocated and permitted site into the green belt, it is a use which is not "inappropriate" in green belt terms as it is a use which maintains the openness of the green belt. It is specifically referred to as an exception in the nationally applied policy and in the Staffordshire Moorlands Local Plan. The provision of new recreational facilities accords with Local Plan Policy, providing a children's play area and specific recreational facilities, including playing pitches.

8.5.3 The proposed change to the junction of Felthouse Lane with Cheadle Road, and the diversion of the western end of the road to a new junction with the A520, will be a significant improvement upon the existing junction which is in the interests of highway safety. It will also segregate traffic to and from the factory from that going to the residential area to the south of Felthouse Lane and also the proposed Community Recreational Facilities. With the removal of an extant Section 52 restriction on HGV movements at certain times, which the new road link will

facilitate, the requirement for use of the Staffordshire Farmers site will no longer exist and that site will be raised to the ground and returned to an agricultural or forestry rural use. This latter proposal, together with the proposals for the Beresford's site, will also effect a considerable visual and environmental improvement in the immediate locality, including the associated highway improvement and reduction in traffic movements.

8.5.4 The Planning Statement also refers to the assessment of potential significant effects upon the environment which demonstrate that there is either no adverse effect or where there is some adverse effect that it is not significant and that mitigation will mollify the adverse impact so that the scheme is acceptable. In the case of HGV movements, there are positive environmental and safety effects with fewer movements resulting from the development.

8.5.5 While this is a unique scheme, and one which involves a substantial development in the green belt, it is a rational proposal for a form of development which

- fully accords with Government policies
- makes best use of resources while reducing waste
- tackles the causes of climate change by substituting renewable energy for that based upon fossil fuels
- provides much needed community recreational facilities
- will effect improvements in highway safety and
- remove unsightly buildings and activity from a prominent green belt location.

8.5.6 The Planning Statement concludes that there are very special circumstances in this instance that outweigh the restrictive policies against development in the green belt. Moreover, given the modest impact upon the environment, and the substantial mitigation proposed, it is considered that there is no significant environmental effect. It is concluded, therefore, that planning permission should be allowed as proposed.

9. CONCLUSIONS

9.1 The Planning Statement details the planning background and relevant considerations for the determination of the proposed development. In particular, it reviews the reasons for the proposed development and the inter-related two elements and the regulatory and Government policy background which is restrictive but also an encouraging and guiding impetus to the scheme.

9.2 The Energy Resource Centre consists of the two significant proposals of a bio-diesel production plant and renewable energy generating unit, the latter raising 20MW of power, together with new on-site storage facilities, to replace off-site ones, and vehicle and plant maintenance workshops. The bio-diesel and electricity generating plant fully accord with Government policy to reduce dependence upon fossil fuels, and thus cut carbon emissions, as contained within the Government's policies for renewable energy projects (PPS22). The application proposal is aimed specifically at making best use of products which might otherwise be underused or treated as a waste (PPS10) and as such fully accords with the Government's long attested policy to make best use of waste including using it to generate electricity or power.

9.3 This Environmental Statement specifically considers the development of the Energy Resource Centre which constitutes "EIA development". Consequently, particular regard has been had in its preparation to the consideration and assessment of potential significant effects upon the environment. Those particular environmental matters which have been the subject of investigation and assessment where previously agreed with officers of the local planning authority and consist of:

- Traffic, and particularly heavy goods vehicle movements
- Landscape Impact and Visual Assessment
- Impact upon Ecology, Bio-Diversity and Nature Conservation
- A Flood Risk Assessment of the site and also an assessment of the potential of the development of the site to cause flooding resulting from Surface Water

run-off, including porosity tests and consequential proposed scheme for surface water drainage of the CRF

- Proposals to reduce the potential for Light Pollution
- An assessment of the impact of Emissions to Air resulting from the proposed renewable energy generation plant and the cumulative impact with existing emissions from the adjoining factory
- A noise assessment, and
- A contaminated land survey and assessment

9.4 The Planning Statement and report on traffic notes the minimal impact that the proposed development will have upon the highway network. Rather the separate Technical Note prepared by Singleton Clamp and Partners illustrates that the proposed development will have a significant beneficial effect in reducing the amount of heavy goods vehicle movements. In this restrictive sense, at least, the proposed scheme represents a sustainable approach to development which will reduce the need for the transportation of goods.

9.5 The development of the extensive large buildings, together with a 30m chimney, as proposed for the energy resource centre could potentially have a significant adverse effect upon the landscape and visual amenity. A full review has been undertaken and an assessment made and it has been concluded that the zone of visual influence in unlikely to be any different from the "ZVI" of the existing rendering factory, due to the location of the proposed development and the context in which it is seen. As a consequence of that, the effects upon long distance views are judged to be minimal.

9.6 The most significant visual effects are from closer views notably from the public footpath which lies at the eastern end of the factory site and the proposed ERC. However, the landscaping proposals both contained within the planning application and forming part of the Landscape Masterplan will ameliorate the impact not only of the proposed development but also of the existing main factory and, as such, will have a beneficial effect given the context of the proposed development adjoining the large scale and prominent factory site.

9.7 In terms of local ecology, bio-diversity and nature conservation, there are no significant environmental effects recorded as likely to occur. The ERC site is of no particular ecological benefit while the proposed mitigation and the landscaping proposals will enhance the locality and result in extensive new planting of native, broad leaved species and other planting. Furthermore the pond or wetland feature in association with Flood Risk attenuation measures will potentially further enhance bio-diversity in comparison with the monoculture grassland.

9.8 The Flood Risk Assessment concludes that the proposed site of the ERC is not at risk from flooding, being within the Environment Agency's identified Flood Risk Zone 1. It is intended to harvest uncontaminated water from buildings for use in the plant and adjoining rendering factory. However, there is a need to attenuate for 1:100 year storm return event to ensure that surface water run-off does not exceed that of a green field. Appropriate Sustainable Urban Drainage Systems can be developed, potentially incorporating tanks and oversized pipes, to attenuate for the run-off. It is proposed to create a pond feature and also a wetland utilising the land immediately to the north of the ERC site which will assist in enhancing bio-diversity. Either using the local watercourse network or the pipeline owned by the Company which runs between the water treatment plant and the River Churnet, there will be a controlled discharge of water so that the surface water run-off from the developed site of the ERC will not have a significant adverse effect and potentially cause flooding elsewhere. Porosity testing has been undertaken which illustrates the need for attenuation of surface water run-off from the area of the CRF and the new link-road which would be by directing water into swales adjoining the road and via an online pond to a nearby watercourse.

9.9 A report on potential light pollution has been prepared. It is a matter of initial consideration and careful design to ensure that there is no unacceptable adverse effect resulting from light pollution. While taking account of the need for health and safety and adequate lighting around an industrial plant, the report concludes that based upon a generic lighting design for the proposed development, and in the context of its assessed existing character and what would be an acceptable level of illumination for

that type of locality, referred to as Environmental Zone E2, there is no unacceptable environmental effect that may arise from light pollution.

9.10 The potential impact of emissions from the renewable energy electricity generating plant has been assessed and, in association with existing sources of emissions from the adjoining rendering plant. It has been concluded that with a 30m chimney all emissions from the combined existing factory and the ERC development will not exceed national air quality standards. A further assessment concludes that it will be possible operate two of the main boilers on 1% sulphur fuel and still maintain operation within national air quality standards. As such, it is concluded that the proposed development will not have a significant adverse effect in terms of air quality.

9.11 A Noise Assessment has also been undertaken which indicates that no adverse impact from noise arising from the use of the Community Recreational Facilities, Energy Resource Centre or proposed new access link-road will arise. Minor mitigation in respect of the Community Recreational Facilities is proposed in addition to the landscaping mounds.

9.12 A Preliminary Contamination Assessment Report, including investigatory trial holes and pits, has been prepared which indicates some contamination by hydrocarbons of soils around the former Beresford's bus garage but these appear to be limited and with no ready pathway which might result in more widespread contamination. This report is adequate for the purposes of use or works which are relatively limited as proposed in the locality of Beresford's bus garage.

9.13 The Environmental Statement has reviewed those matters which it was agreed with the local planning authority should be the subject of specific environmental impact assessment. It has also taken into account the other matters required under Part II of Schedule 4 of the EIA Regulations. It is concluded that there is no unacceptable significant environmental impact which will arise from the proposed development taking account of the amendments made to the submitted scheme, which arose from

the initial review of the various Environmental Impact Assessments and reports, and the proposed mitigation.