

Agenda Item No. 3.1

**DERBYSHIRE COUNTY COUNCIL**  
**REGULATORY – PLANNING COMMITTEE**

**5 October 2015**

Report of the Strategic Director – Economy, Transport and Environment

- 1 PROPOSED DEVELOPMENT AND OPERATION OF A 15 MEGA WATT RENEWABLE ENERGY CENTRE AND ASSOCIATED INFRASTRUCTURE, UTILISING BIOMASS RICH FUEL THROUGH GASIFICATION AT THE FORMER SITE OF THE DRAKELOW C POWER STATION, DRAKELOW**  
**APPLICANT: FUTURE EARTH ENERGY**  
**CODE NO: CW9/0615/48**

**9.1590.1**

**Introductory Summary** This application proposes to construct an energy generating facility, housed in a modern style building, on land within the former Drakelow C Power Station, south of Burton upon Trent, which is designed to accept up to approximately 169,500 tonnes of Biomass Rich Fuel (BRF) per annum. BRF is a product recovered from the inert, combustible residual elements of pre-sorted Commercial and Industrial waste stream. The proposed development would be a Combined Heat and Power (CHP) ready plant which the applicant states *“would provide sufficient renewable electricity to supply approximately 23,000 households annually with renewable electricity”*; enough for about 60% of all households in the South Derbyshire District. The facility would produce up to 15 Megawatts (MW) of electrical energy and 9 MW of thermal energy output. It is designed to operate 24 hours per day, 7 days a week, all year round. The proposed facility would use a gasification process to extract the electricity and heat from the fuel.

The key components for the handling of the BRF and generation of energy would be totally enclosed in a purpose-built new building, designed to fit in with the adjacent Drakelow Park mixed use development. The building would be of a steel frame portal construction and, at its highest point, it would be 22m in height (excluding the stack which would be 45m in height), and would have an overall footprint of around 164m by 80m. External works include access roadways, HGV parking, light vehicle parking and landscaping.

The plant would have a 25 year lifespan and would create about 100 jobs during the construction period and 20 jobs when in operation.

I have considered the proposal against the relevant policies of the Development Plan and I am satisfied that the development would not be unacceptable. On that basis, I recommend that planning permission is approved, subject to the conditions that are set out the Officer's Recommendation at the end of the report.

(1) **Purpose of Report** To enable the Committee to determine the application.

(2) **Information and Analysis**

### **The Applicant**

Future Earth Energy has stated a principal aim of developing a network of "Resource Parks" in the United Kingdom (UK). The planning application has been submitted by TNEI Services Limited. This included the preparation and compilation of the accompanying Environmental Impact Assessment (EIA) and the Environmental Statement (ES) submitted with the application.

### **Site and Surroundings**

The site lies in the grounds of the former Drakelow C Power Station, off Walton Road, Drakelow, which was coal-fired. It was decommissioned in 2003 and subsequently demolished in 2006. The site is a derelict, vegetated parcel of land, comprising mounds of demolition material, two cooling tower concrete bases which extend off the application site and a concrete hardstanding, formerly occupied by buildings, yard areas and access roads associated with the Power Station. The site is some 3.75 kilometres (km) to the south of Burton upon Trent. The suburb Branston is about 2km away to the north-east and the village of Walton on Trent some 2.2 km to the south. The site is a rectangular area of approximately 2.5 hectares (ha). Access to the site is taken off Walton Road to the south-west of site.

The site is bounded to the south and east by the Burton South main electrical substation with open brownfield land immediately in other directions. This open land includes a number of ponds, together with areas of scrubland and belts of mature woodland that effectively screen the site from the road network and surrounding areas. The River Trent lies to the north-west. The consented Drakelow Park mixed use development would lie 400m to the south-east.

The consented Drakelow Combined Cycle Gas Turbine (CCGT) Power Station would be located approximately 500m to the west and a solar farm, approximately 1km to the west, has recently gained planning approval.

Further afield to the north and to the west is the River Trent. There also includes remnants of the railway used to transport coal in the site, a spoil heap that has been partially colonised by scrub and grassland, a pumping station building and other works buildings associated with the former power station

and Drakelow Nature Reserve (managed by Derbyshire Wildlife Trust), which consists of old sand and gravel pits, and riverside meadow within the flood plain of the River Trent.

Beyond the River Trent, the land uses include the Branston Golf course on the urban edge of Burton upon Trent. Factory buildings at the Roger Bullivant site and extensive areas of outside storage of materials are located to the north-east of the site. Major transport corridors, including the A38 and two railway routes, pass within 2km of the site.

To the south and south-west are a number of lattice steel pylons that cross the area to Drakelow sub-station which adjoins the west side of the application site. Along Walton Road is a mature belt of trees and further south is undulating landscape, dominated by arable agriculture and woodland blocks and occasional farmsteads.

To the east and beyond the application site is Walton Road and then extensive agricultural land and scattered farmsteads. The access to the site is from Walton Road and along the former roadway made up of solid bound material that joins to Walton Road. The nearest residential property is the gate house, once associated with the former Drakelow Hall.

Within the former Drakelow C Power Station, planning permission has been granted for a number of developments. These include:

- A solar farm, approximately 275m to the west of the proposed development.
- A gas turbine power station, approximately 500m to the south-west of the proposed development.
- The Drakelow Park Scheme, approximately 200m to the south-east, which was granted planning permission by South Derbyshire District Council (SDDC) in 2012 (as an outline planning application 9/2009/0341, and with a reserved matters permission in December 2012) for up to 2,239 dwellings, including a retirement village, an employment park, two local centres, a new primary school and associated landscaping and highways infrastructure. A masterplan was designed and submitted as part of this application.

### **Proposed Development**

The application proposes to develop a Renewable Energy Centre and associated infrastructure that would have an installed capacity of 15MW which would be fed into the national grid. The proposed development is a CHP ready gasification plant fuelled by BRF. It is estimated that the facility would require up to 169,500 tonnes of fuel per annum. The application is seeking to

construct a steel portal framed building measuring 23m high, 164m long and 80m wide that would house the plant on a site that would measure 2.54ha. The facility would also include a 45m high stack. The proposed development would operate 24 hours per day, 7 days a week, all year round, except for outages, and the minimum of downtime, and it would be designed with capacity for the storage of up to 4 days of fuel feedstock.

The system would be enabled to provide heat to the approved Drakelow Park Scheme that adjoins the former Drakelow C Power Station site.

The proposed energy facility would comprise a modern plant which would use gasification under Advanced Thermal Treatment (ATT) technology, to extract energy (in the form of electricity and heat) from the fuel.

BRF is produced by the mechanical treatment and shredding of Commercial and Industrial (C&I) waste arisings. It may also contain Municipal Solid Waste (MSW) content after materials that can be recycled have been removed. It consists mainly of the combustible fractions of waste, such as paper, card, plastic and biodegradable waste. Production of BRF involves the removal of metals, glass, stone and fines (5mm down particles). The waste is usually then shredded to a particular particle size and can either be baled, wrapped or supplied loose. The calorific value tends to be between 9 and 15 MJ/kg.

The majority of the key components associated with the handling of the fuel and generation of energy would be totally enclosed within a purpose built new building that has been designed to fit in with the adjacent Drakelow Park mixed use development.

The building would be segregated into the dedicated plant areas of fuel reception, boiler and flue gas plant, thermal conversion plant, low voltage control room, control room, workshop/stores and switchgear and transformer areas.

At one end of the Renewable Energy Centre, the fuel unloading facility would be located, extending to approximately 2,015m<sup>2</sup>. Access to this would be via fast acting roller shutter doors located in the northern façade of the building; separate doors would be provided for ingress and egress to the building. To the east of the main fuel store would be the largest part of the building which hosts the gasifiers, auxiliary units and bag filters.

There would be a 45m high (from floor level) flue stack, which would be adjacent to the main building. The stack height has been calculated through air quality modelling to identify the optimum height for dispersion of the emissions.

At the other end of the plant would be the 15MW steam turbine and the ash handling silo. To the north of the main chamber the control room would be located, forming part of the office block.

Offices and the education block would be located on the first floor of the Renewable Energy Centre.

Outside the building would be the stack (45m), access roads, Heavy Goods Vehicles (HGVs) Parking, light vehicle parking and landscaping. Buildings and operational areas would be situated on an impermeable concrete pad. A high percentage of water from the operations would be re-circulated through the process and there would be no discharges to controlled waters.

The vehicular access to the site would be onto the existing access road of the former Drakelow C Power Station off Walton Road. The site would have a one way circulation where HGVs would be driven to the site via an entrance at its south-western corner and circulate around the perimeter in a clockwise direction. Cars would enter and exit the site through a dedicated entrance to the east of the HGV entrance, giving access to the parking facilities, the control centre and visitor centre.

### **Gasification Process**

The following description draws on the information provided in the planning application.

BRF would be delivered to the site in a processed state without the need for any onsite sorting or treatment. It would be transported in covered vehicles and stored and handled within the building to minimise any generation of dust or odour. The applicant states that any BRF that does not meet the specification would be returned to the customer.

The proposed development would recover the energy from the BRF through a process of gasification to produce a cleaned synthetic gas (Syngas) that would then be burnt to heat water and produce steam. The steam would drive a steam turbine to generate electricity. This electricity would be exported to the local distribution network and residual heat would also be available for use by nearby businesses or communities.

The proposed development would consist of three gasification and boiler lines, each able to provide steam to be fed into a single steam turbine for up to 5MW of electrical energy generation i.e. an overall 15MW of electrical generating capacity, and also between 6MW and 9MW of heat.

Pre-treated BRF would be delivered to the plant as shredded material and stored in the main fuel store area. Each gasification line would be fed by a walking floor carrying BRF into each gasifier. Within the gasifiers the material

passes through a three stage process where gasification occurs at high temperatures (typically in excess of 800°C) with limited oxygen to create partial combustion, which is referred to as substoichiometric oxidation. Gases produced during the gasification process are cleaned through secondary combustion and then passed through steam generating boilers where feed water, drawn from the public water system and treated, would be turned into steam.

Steam from the three boilers would be combined and passed, at high pressure, through a steam turbine to generate electricity that would be exported to the local distribution network via a transformer within the plant and a grid connection to the nearby Burton South sub-station. Low pressure steam could be diverted to provide heat within the plant and might also be able to provide heat energy to adjacent developments.

After passing through the boilers, the flue gases would be cleaned by a series of chemical treatment and filtering processes to remove pollutants. Cleaned gases would be emitted into the atmosphere via a combined stack consisting of three flues, one from each line.

After generation, steam would be condensed in an air-cooled condensing unit and the water recovered and returned to the feed water system for reuse. Residual material would be in the form of ash which would be collected at various stages of the process. A conveyor would transport ash to the discharge point in the bottom ash storage hall. The majority of ash collected (around 90%) would be non-hazardous and would be reused as an aggregate. Ash made up of the air pollution control residues would be disposed of at a licensed hazardous waste site.

Approximately 500m of underground cabling would be required to connect the development to the nearest connection point at Burton South sub-station.

### **General Operational Aspects**

It is proposed to use the existing access road to the former Drakelow C Power Station, off Walton Road. All traffic would follow the former access road to the site. The number of daily loads would vary over the construction period, with a predicted peak daily HGV movement of 200 (100 in and 100 out), over a 10 hour working day, generating an average of 20 (10 in and 10 out) vehicle movements an hour. The Renewable Energy Centre, when operational, would produce up to 60 two-way trips a day. The site is located close to the A38 and would have direct connection when the proposed Walton By-pass is constructed, which is scheduled for when the Drakelow Park commences. All HGV traffic would turn left on Walton Road, to head north through Burton upon Trent, to reach the surrounding strategic highway network.

It is proposed to operate the facility on a continuous basis, 24 hours a day, 7 days a week, operating for a total of 365 days per year. Direct waste deliveries to the Renewable Energy Centre are proposed to take place during 'normal' working hours, typically from 0800 hours to 1800 hours Mondays to Fridays and 0800 hours to 1300 hours Saturdays.

### **Construction Phase**

The application states that, during the construction phase, the proposal would provide around 100 on-site construction jobs which would be sourced locally wherever possible. Once operational, the site would employ a staff equivalent to 20 full time posts at the waste management facility and would generate 20 new jobs.

Construction would commence with site enabling works to accommodate the necessary materials and equipment on-site. This would include the provision of power, drainage and communications necessary for the duration of the construction phase.

The general sequencing of civil engineering and building works would be:

- 1) site clearance and enabling works;
- 2) excavation works;
- 3) piling operations;
- 4) construction of floor slab in tipping hall area;
- 5) construction of general foundations and gasification plant slab together with auxiliary floor slab area to provide laydown area for plant delivery;
- 6) construction of turbine hall;
- 7) installation of air cooling units;
- 8) construction of internal plant and electrical rooms;
- 9) construction of administrative and office/welfare facilities;
- 10) installation of process equipment coordinated with erection of steel superstructure and cladding;
- 11) mechanical and electrical fit-out;
- 12) commissioning of plant and equipment;
- 13) external works to include drainage, services, general pavements/hard standings and site entrance works; and
- 14) landscaping works.

The main items of plant which are likely to be required during the construction phase would include:

- excavators;
- dozers;
- craneage;
- telescopic handlers;
- dumpers/general earthmoving vehicles;

- concrete delivery wagons and concrete pumps; and
- low-loaders and plant equipment delivery vehicles.

The construction period for the scheme is forecast to be 16 months and all parking and functions associated with this phase would be accommodated on the site. The construction compound would consist of office, canteen and welfare accommodation (in the form of portable modular style buildings), which would be two-storey, with external metal steps, portable style secure storage buildings, bunded/dual skinned fuel tanks and oil storage, separate containers for office, canteen and construction wastes.

### **Environmental Statement**

The planning application is accompanied by an ES which covers all the relevant topics and includes assessments undertaken in accordance with relevant guidance, which concludes that there are limited impacts only that can be mitigated to acceptable requirements. These topics are addressed in more detail in the 'Planning Considerations' section below.

### **Consultations**

#### **Local Member**

Councillor Lauro, Councillor Southerd (adjoining) and Councillor Bambrick (adjoining) have been consulted with a request for any comments by 25 July 2015.

#### **South Derbyshire District Council**

No objections, subject to:

- 1) the applicant providing information regarding the number of operational phase traffic flows through the Air Quality Management Areas to ensure that the Institute of Air Quality Management (IAQM) screening criteria are not exceeded;
- 2) further consideration of highway capacity and safety impacts on the Walton Road, in particular, the restricted hours proposed for construction traffic used as the assumption for the modelling in the transport assessment and ES;
- 3) further consideration of the potential flooding of the access road and the impact that this may have on the operation on the Renewable Energy Centre and need to undertake further modelling work; and
- 3) conditions to the planning permission that would require the submission of Construction Phase Dust Management Plan, restriction on the hours of working during the construction phase, and a scheme for woodland planting to the west of the site.

**Comment:** It is noted that the Environmental Health Officer does not raise any fundamental objection to the proposal and the recommended conditions have



been incorporated into those below. I have shared with the County Council's Flood Risk Team and the Highway Authority the applicant's response to potential flooding of the access road and highway capacity, and there are no further additional concerns. I have recommended conditions that would restrict the hours of operation and a landscaping scheme.

**Drakelow Parish Council, Barton Parish Council, Walton on Trent Parish Council**

No comments received.

**Branston Parish Council**

The Parish Council objects to the proposal *"on the grounds of noise, pollution and increase in heavy lorries should this application proceed"*.

**Staffordshire County Council, as a Planning Authority**

Staffordshire County Council, as a Planning Authority, raises no objection and states *"The location of the application site is such that it is unlikely to have any impact on the development of mineral resources within Staffordshire. In a similar vein, it is unlikely to have any adverse impact on the operation of any waste management facilities within Staffordshire. Indeed, the proposed renewable energy centre would be well placed to contribute to waste management in Staffordshire by accepting waste-derived fuels"*.

**East Staffordshire District Council**

The Environmental Health and Planning Officers have responded with no comments.

**Public Rights Of Way**

No public rights of way affected by the proposed development.

**Highways Authority**

The Highway Authority does not object to the proposed development and, of particular relevance, offers the following comments:

*"The application is also accompanied by a Construction Traffic Management Plan (CTMP). The content of the CTMP is considered suitable to manage the highway related implications of vehicle movements during the construction process, and can be referred to accordingly in a condition of planning permission."*

*Both the Transport Statement (TS) and CTMP refer to construction of the Walton-on-Trent Bypass and Bridge, and the potential for redistribution of traffic. There is currently no guarantee when, or if, the infrastructure will be open to traffic and, therefore, the proposal needs to be dealt with on the basis of generated vehicle movements routing via the existing highway network. The CTMP, Figure 3.1, provides a routing plan indicating HGVs using Walton*

*Road between the site access and passing through Stapenhill to the A444 /A511 /A38. The majority of the route is therefore on Principal / Trunk roads and / or outside Derbyshire. The acceptability of the proposals to the Derbyshire Highway Authority is without prejudice to the position of Staffordshire County Council as Highway Authority for other parts of the proposed route.*

*The CTMP, and to a lesser extent, the TS make reference to the site access. Access is proposed via the former Drakelow C Power Station access and it is stated (CTMP Paragraph 2.12) that the access “has good forward visibility on its approach and good visibility splays in both directions for exiting vehicles”. Strictly speaking, however, this is not the case. Whilst visibility is theoretically achievable within highway verge it is currently heavily overgrown resulting in emerging driver visibility being severely restricted.*

*S106 Agreement – The TS makes reference (Paragraph 4.32) to operational vehicles routing northwards to the A444. However, in order to increase enforceability of the operational HGV routing proposal it is considered that an agreed routing plan should be required through a S106 Agreement or similar undertaking.”*

The Highway Authority recommends conditions to improve visibility sightlines, management of construction traffic, submission of the constructor's compound and traffic management scheme during decommissioning.

**Staffordshire County Council, as Highway Authority**

No objections.

**Environment Agency**

The Agency has not objected, but the proposed facility could not operate without a relevant Environmental Permit. The applicant has also applied to the Agency for this. The Agency has stated that the land forming the application site might be the source of contamination which may currently be affecting 'controlled waters' receptors of the groundwater in the underlying Secondary Aquifers and the River Trent. It also notes that there is potential for re-mobilisation of any contaminants present in the site during development operations. The information presented indicates that the previous site investigations relating to the proposed combined cycle gas turbine generating stations did not cover the boundary of the proposed Renewable Energy Centre. The Agency has therefore recommended some conditions, in the event that planning permission is granted, which would address the presence of contamination.

**Natural England**

Natural England has responded as follows:

***“River Mease Special Area of Conservation (SAC) – No objection***

*The application site is within or in close proximity to a European designated site (also commonly referred to as Natura 2000 sites), and therefore has the potential to affect its interest features. European sites are afforded protection under the Conservation of Habitats and Species Regulations 2010, as amended (the ‘Habitats Regulations’).*

*The application site is in close proximity to the River Mease Special Area of Conservation (SAC) which is a European site. The site is notified at a national level as the River Mease Site of Special Scientific Interest (SSSI). Please see the subsequent sections of this letter for our advice relating to SSSI features. In considering the European site interest, Natural England advises that you, as a competent authority under the provisions of the Habitats Regulations, should have regard for any potential impacts that a plan or project may have. The Conservation objectives for each European site explain how the site should be restored and/or maintained and may be helpful in assessing what, if any, potential impacts a plan or project may have.*

*The consultation documents provided by your authority do not include information to demonstrate that the requirements of Regulations 61 and 62 of the Habitats Regulations have been considered by your authority, i.e. the consultation does not include a Habitats Regulations Assessment.*

*In advising your authority on the requirements relating to Habitats Regulations Assessment, and to assist you in screening for the likelihood of significant effects, based on the information provided, Natural England offers the following advice:*

*The proposal is not necessary for the management of the European sites, the proposal is unlikely to have a significant effect on any European site, and can therefore be screened out from any requirement for further assessment.*

*When recording your HRA we recommend you refer to the following information to justify your conclusions regarding the likelihood of significant effects.*

*The scale and nature of the development and the distance involved means that there are unlikely to be any air quality or water quality impacts on the River Mease. The application site is over 5km from the River Mease. Foul water will be discharged to the mains sewer and treated at a sewage treatment works outside the River Mease catchment. Surface water drains to the River Trent. There is unlikely to be any impact on the air quality of the River Mease given the distance from the application site and the control measures in place.*

**SSSI No objection – no conditions requested** *This application is in close proximity to the River Mease Site of Special Scientific Interest (SSSI). Natural England is satisfied that the proposed development being carried out in strict accordance with the details of the application, as submitted, will not damage or destroy the interest features for which this site has been notified. We therefore advise your authority that this SSSI does not represent a constraint in determining this application. Should the details of this application change, Natural England draws your attention to Section 28(1) of the Wildlife and Countryside Act 1981 (as amended), requiring your authority to re-consult Natural England”.*

They also encourage the provision of Green Infrastructure into the development the enhancement of biodiversity and, where possible, enhancement of local distinctiveness.

### **Flood Risk Team**

The Flood Risk Team notes that the application is not accompanied by a drainage scheme and that the Flood Risk Assessment does not propose an outline or detailed drainage scheme for the development that is compliant with existing guidance within the Department of Environment, Food and Rural Affairs (Defra) non-statutory technical standards for sustainable drainage systems (SuDS) (March 2015). It recommends a number of conditions that would require the submission of a drainage scheme that would demonstrate compliance with technical standards for sustainable urban schemes.

It also recommends an assessment is undertaken of the condition of the existing drainage/sewer system to ensure that it is capable of accommodating the surface water runoff from the proposed development.

### **Coal Authority**

The Coal Authority raises no objection and states “*The application site does not fall with the defined Development High Risk Area and is located instead within the defined Development Low Risk Area. This means that there is no requirement under the risk-based approach that has been agreed with the LPA for a Coal Mining Risk Assessment to be submitted or for The Coal Authority to be consulted.*”

### **Derbyshire Wildlife Trust, Severn Trent Water, National Grid**

No comments received.

### **The National Forest Company**

The National Forest Company (NFC) notes that the consultation response from SDDC refers to the need to achieve National Forest objectives, as well as address the visual impact of the proposals, and recommends a condition for woodland planting to the west of the site. The NFC agrees with this approach and considers that this should be of a scale to address the expected

woodland planting and landscaping required by policies ENV10 and INF8 of the adopted South Derbyshire Local Plan (SDLP). Planting to the west of the proposed development would also mitigate the visual impact of the development on the National Forest Way. This is a promoted long-distance trail following public footpaths through all the landscapes of the Forest. This route is therefore particularly well used and the potential impact on this needs to be addressed. The NFC states that should land to the west of the application site not be under the control of the applicant, then the expected woodland planting could be met by a financial contribution. This should be calculated at £20,000 per ha and would therefore equate to £10,000 for this development for further tree planting or enhancement of existing woodland sites within the vicinity of the proposed development.

**Comment:** The applicant has proposed to make a financial contribution of £10,000 towards off-site tree planting within the National Forest in line with policies ENV10 and INF8 of the SDLP. This also addresses the comments raised by SDDC for the need to plant additional trees to the west of the site.

### **Publicity**

The application was advertised by press notice (Burton Evening Mail) and site notices with a request for observations by 12 August 2015. One representation has been received which raised the following concerns:

- The site is not remote and is close to Branston in East Staffordshire.
- The orientation of the building is towards the residents of Branston, Burton upon Trent and not towards the dispersed population within South Derbyshire.
- There should be no risk of adverse impact and acoustic problems (low frequency noise from the site).
- Prevailing winds bringing hazardous gases towards East Staffordshire and away from residents in South Derbyshire.
- The frequency of pollution testing after one year is inadequate as the waste streams will vary.

**Comment:** The planning points raised have been evaluated in the 'Planning Considerations' section below.

### **Planning Considerations**

Section 38(6) of the Planning and Compulsory Purchase Act 2004 requires that planning applications are determined in accordance with the development plan unless material considerations indicate otherwise. In relation to this

application, the relevant policies of the development plan are contained in the saved policies of the adopted Derby and Derbyshire Waste Local Plan (WLP) and the SDLP. The NPPF (March 2012), the National Planning Practice Guidance (March 2014) and National Planning Policy for Waste (NPPW) are also material considerations.

Both development plans predate the NPPF and therefore the weight attributed to the relevant saved policies, may need to be moderated, in line with their degree of consistency with the NPPF and NPPW.

### **Derby and Derbyshire Waste Local Plan**

The WLP was adopted in 2005 and sets out the planning policies that will apply to proposals for waste development. The WLP was prepared in line with the now superseded National Waste Strategy, "Waste Strategy 2000" (May 2000) and Planning Policy Guidance Note (PPG) 10 "Planning and Waste Management" (September 1999), so does not therefore take account of the more recent expressions of national policy, such as the NPPW, NPPF and the Waste Management Plan for England. An assessment of the WLP's policy, in light of the NPPW in particular, to ensure it reflects current national policy, is presented below.

The main policies that are relevant to the determination of this proposal are:

- W1b: Need for the Development.
- W4: Precautionary Principle.
- W5: Identified Interests of Environmental Importance.
- W6: Pollution and Related Nuisances.
- W7: Landscape and Other Visual Impacts.
- W8: Impact of the Transport of Waste.
- W9: Protection of Other Interests.
- W10: Cumulative Impacts.

The aim of the waste planning strategy, set out in the WLP, is to establish a planning framework which enables the provision of adequate facilities and an integrated system for the management of waste whilst:

- respecting the principles of sustainable development;
- protecting people and communities, the countryside, natural resources; and
- the built heritage from the adverse effects of waste management.

The WLP goes on to outline eight policy objectives:

- 1) To permit waste development which is guided by the principles of sustainable waste management, particularly:

- the concept of waste being a valuable resource;
  - consideration of the Best Practicable Environmental Option for each waste stream;
  - the key considerations: the movement of waste management up the waste hierarchy, the proximity principle and self-sufficiency.
- 2) To permit an adequate supply of appropriate sites and facilities to cater for the needs of the plan area and its communities, and for the needs of the waste collection and disposal authorities, and the waste management industry.
  - 3) To permit development which contributes to the establishment of an integrated approach to waste management.
  - 4) To permit development which makes good use of existing infrastructure or of derelict, despoiled or under-used land and buildings, contributes to the regeneration of the coalfield and deprived areas of Derby; restores rail and water transport routes, contributes to highway safety, and brings other physical benefits to the local environment.
  - 5) To permit development which is in locations which reduce the need to travel and enables the movement of freight by rail and water.
  - 6) To refuse development which would have material, adverse impacts on people or communities, including impacts on their health and on their enjoyment of the amenities of their locality.
  - 7) To refuse development which would harm the open character of Green Belts.
  - 8) To refuse development which would have other material and adverse impacts, including impacts on greenfield land, the best and most versatile agricultural land, the countryside, valued landscape and landscape character, biodiversity and nature conservation, interests of heritage importance, existing and potential transport routes, water conservation and resources and air quality.

### **South Derbyshire Local Plan**

The SDLP was adopted in 1998 and will be replaced in due course. The Plan sets out the District Council's approach to the development, management and use of land to the year 2001.

The application site falls within the former developed area of the Drakelow C Power Station, which has no specific allocation in the Local Plan and, on that basis, is not considered against the Countryside Policies of the Plan (Policy EV1), even though the site is located well outside the settlement confines of

Walton on Trent or any other settlement. It is reasonable, therefore, that only the generic policies in the SDLP would be of direct relevance, including:

- EV 9: Protection of Trees and Woodland.
- EV11: Sites and Features of Natural History Interest.
- EV12: Conservation Areas.
- EV13: Listed or Other Buildings of Architectural or Historic Interest.
- EV14: Archaeological and Heritage Features.
- EV15: Historic Parks and Gardens.

The policies are very dated and do not incorporate the principles of sustainable development, which were encapsulated in national planning policy guidance later on. The site was an operational power station in 1998 and is now previously developed land.

The emerging policies in the South Derbyshire Local Plan Submission (SDLPS) are also of some relevance but carry limited weight in the assessment of the application, as the SDLP was subject to Examination in November and December 2014, and has been on hold since then, pending further work and evidence required by the Local Plan Inspector. The policies of the SDLPS are of direct relevance to the application, particularly Policy SD6: Sustainable Energy and Power Generation and policies H6 and E1 of the SDLP, which identify the former Drakelow C Power Station site for the development of 2,239 dwellings and 12ha of employment land.

The following European and national instruments affect the consideration of this proposal:

#### **European Directives**

- Waste Framework Directive 2008/98/EC.
- Waste Incineration Directive 2000/76/EC.

#### **National Legislation and Statements**

- The Climate Change Act 2008.
- The UK Renewable Energy Strategy and Low Carbon Transition Plan (July 2009).
- 2020 UK Renewable Energy Roadmap (July 2011).
- The Roadmap Update (November 2013).
- The Annual Energy Statement 2014.

#### **National Policy Guidance**

- NPS EN-1 Overarching National Policy Statement for Energy (July 2011).
- NPS EN-3 Renewable Energy (July 2011).
- Waste Management Plan for England (December 2013).
- NPPW (October 2014).



- NPPF (March 2012).
- Planning Practice Guidance.

### **Waste Framework Directive**

The European Union (EU) Waste Framework Directive (WFD) provides the legislative framework for the collection, transport, recovery and disposal of waste, and includes a common definition of waste. The Directive requires all member states to take the necessary measures to ensure waste is recovered or disposed of without endangering human health or causing harm to the environment and includes permitting, registration and inspection requirements.

The objectives of the Directive can be summarised as encouraging a reduction in waste production, an increase in the reuse and recycling of waste, and a reduction in the amount of waste going to landfill, together with the management of waste close to the source (the proximity principle) and the establishment of a sustainable and integrated waste management system.

The Directive requires member states to draw up management plans and take appropriate measures to encourage firstly, the prevention or reduction of waste production and its harmfulness, and secondly, the recovery of waste by means of recycling, re-use or reclamation, or any other process with a view to extracting secondary raw materials, or the use of waste as a source of energy. The “waste hierarchy”, set out in Article 4 of the Directive, provides the following priority order of waste prevention and management:

- a) prevention;
- b) preparing for re-use;
- c) recycling;
- d) other recovery, e.g. energy recovery; and
- e) disposal.

The Directive (at Article 16) also applies the Proximity Principle. This involves the underlying principle of waste being managed close to its source. However, Article 16 makes clear that the principle does not require each member state to possess the full range of final recovery facilities, and so by extension, the Directive does not require areas of individual local authorities to do so either. The Directive requires mixed municipal waste to be recovered at ‘one of the nearest’ facilities allowing for pragmatic application. There is no general Directive requirement that facilities shall only process waste from a prescribed local area.

The Directive requirements are supplemented by other directives for specific waste streams. The Directive requirements, including the application of the waste hierarchy, are transposed into national law in the Waste (England and Wales) Regulations 2011. It is proposed to replace the ‘target’ approach of the

WFD with a policy based approach in order to deliver a circular economy for waste. However, it is at an early stage of consideration at the present time.

### **National Policy Statements**

The National Policy Statements (NPSs), issued by the Department of Energy and Climate Change (DECC), principally relate to Nationally Significant Infrastructure Projects. However, both EN-1 and EN-3 state that NPSs are likely to be a material consideration in decision making for applications that fall under the Town and Country Planning Act 1990.

With regard to the need for new energy infrastructure projects *‘the Government considers that without significant amounts of new large scale energy infrastructure, the objectives of its energy and climate change policy cannot be fulfilled’*.

As part of the UK’s need to *‘diversify and decarbonise electricity generation’*, the NPS state that the Government is committed to increasing *‘dramatically the amount of renewable generation capacity’* and that *‘the recovery of energy from the combustion of waste will play an increasingly important role in meeting the UK’s energy needs’*.

### **Waste Management Plan for England (December 2013)**

The Waste Management Plan provides a guide to sustainable waste management which promotes the waste hierarchy (as now enshrined in law through the Waste (England and Wales) Regulations 2011). The hierarchy gives top priority to waste prevention, followed by preparing for re-use, then recycling other types of recovery (including energy recovery) and, last of all, disposal by landfill.

The first two tiers (prevention/preparing for reuse) are aimed at developing strategies and initiatives prior to waste being collected, with the third and fourth tiers (recycling/other recovery) dealing with what can be done with the waste streams that are collected. The first two tiers therefore have no significant bearing on the proposed development. The waste hierarchy favours recycling as the most desirable tier for waste requiring re-processing, with ‘other recovery’ being favoured for dealing with residual wastes that cannot be recycled. ‘Disposal’ is the least favoured tier. In this case, the feedstock would be residual waste that exists after recycling from which energy can be recovered and the process would rank as ‘other recovery’, rather than ‘disposal’.

The plan states that *‘the Government supports efficient energy recovery from residual waste – of materials which cannot be reused or recycled - to deliver environmental benefits, reduce carbon impact and provide economic opportunities’*.

With regard to Refuse Derived Fuel (RDF), the plan states that this is mainly exported to northern continental Europe and Scandinavia for energy recovery with exports increasing significantly in recent years in response to the rising costs of landfill in the UK.

### **National Planning Policy for Waste (October 2014)**

The NPPW sets out objectives for sustainable waste management. The NPPW links itself to the Waste Management Plan for England, emphasising the pivotal role planning can play in providing a more sustainable and efficient approach to resource use and management. The key points relating to the proposed development are:

- delivery of sustainable development and resource efficiency, including provision of modern infrastructure, local employment opportunities and wider climate change benefits, by driving waste management up the waste hierarchy;
- the positive contribution that waste management can make to the development of sustainable communities; and
- helping secure the disposal of waste without endangering human health and without harming the environment.

The NPPW sets out the policy considerations for the location of waste management facilities, and advises that:

*‘Where a low carbon energy recovery facility is considered as an appropriate type of development, waste planning authorities should consider the suitable siting of such facilities to enable the utilisation of the heat produced as an energy source in close proximity to suitable potential heat customer’.*

The NPPW goes on to advise on the physical and environmental constraints on the type of development, the capacity of the transport infrastructure, and the cumulative impact of existing and proposed waste facilities.

The NPPW also sets out further issues to be considered in determining planning applications for waste management facilities. It states that the waste planning authority should ensure that waste management facilities in themselves are well-designed, so that they contribute positively to the character and quality of the area in which they are located.

### **The National Planning Policy Framework**

The NPPF was published by the Department of Communities and Local Government in March 2012. Whilst it does not contain specific waste policies, it states that *‘local authorities preparing waste plans and taking decisions on waste applications should have regard to policies in this Framework so far as relevant’.*

At the heart of the NPPF is a *'presumption in favour of sustainable development'*, which should be seen as *'Core to both 'a golden thread running through both plan-making and decision-taking'.*

The NPPF states that:

- the purpose of the 'planning system' is to contribute to the achievement of sustainable development'; and
- the UK Government is committed to securing *'economic growth in order to create jobs and prosperity, building on the country's inherent strengths, and to meeting the twin challenges of global competition and of a low carbon future'*.

The NPPF does not define sustainable development but emphasises that it has three dimensions: 'economic', including the provision of infrastructure; 'social'; and 'environmental'; that provides for the prudent use of natural resources, the minimisation of pollution and the mitigation of climate change predicated on the transition to a low carbon future.

The three dimensions of sustainable development should not be viewed in isolation 'because they are mutually dependent'. The UK's future prospects for growth and competitiveness will be intrinsically linked to a successful transition to a low carbon economy.

The NPPF provides a set of core land-use principles which should 'underpin both plan-making and decision taking'. The most relevant Core Planning Principle in this case is that the planning system should *'support the transition to a low carbon future in a changing climate...and encourage the reuse of existing resources, ...and encourage the use of renewable resources (for example, by the development of renewable energy)'*.

In relation to climate change, the NPPF identifies the key role the planning system has in supporting the delivery of renewable energy which, in turn, will help minimise vulnerability and provide *'resilience to the impacts of climate change'*. The NPPF sees this as being *'central to the economic, social and environmental dimensions of sustainable development'*.

The NPPF calls upon the planning system to help secure *'radical reductions in greenhouse gas emissions, minimising vulnerability and providing resilience to the impacts of climate change, and supporting the delivery of renewable and low carbon energy and associated infrastructure. This is central to the economic, social and environmental dimensions of sustainable development'*.

The NPPF states that good design is a key aspect of sustainable development. Local planning authorities should not refuse planning permission for buildings or infrastructure that promotes high levels of

sustainability because of concerns about incompatibility if those concerns have been mitigated by good design.

The NPPF expects applicants to work closely with those directly affected by their proposals to evolve designs that take account of the views of the community. *‘Proposals that can demonstrate this in developing the design of the new development should be looked on more favourably’.*

The NPPF calls upon the planning system to contribute to and enhance the natural and local environment. When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity. If significant harm, resulting from a development, cannot be avoided, adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused.

The decisions of local planning authorities should aim to *‘avoid noise from giving rise to significant adverse impacts on health and quality of life’* and aim to *‘mitigate and reduce to a minimum any other adverse impacts’.*

The NPPF states that when considering impacts on the significance of a designated heritage asset, where a proposal will lead to *‘less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal’.*

### **National Planning Practice Guidance**

The online Planning Practice Guidance reinforces the NPPF in stating that the planning system *‘has an important role in the delivery of new renewable and low carbon energy infrastructure in locations where the local environmental impact is acceptable’.* It reaffirms that increasing the amount of energy from renewable and low carbon technologies will help to make sure the UK has a secure energy supply and stimulate investment in new jobs and businesses.

### **Summary of Advanced Thermal Technologies**

ATT are primarily those that employ pyrolysis (thermal degradation of a substance in the absence of oxygen) and/or gasification. Gasification of solid materials is not a new concept; it has been used extensively to produce fuels such as town gas. It is only in recent years that these systems have been commercially applied to the treatment of MSW. The usage of ATT for gasification of waste is relatively new in the UK but large scale plants have been in operation in Europe, North America and Japan for several years.

The actual plant design and configuration of these facilities differs considerably between the various providers, although in general, an ATT plant will typically consist of the following key elements:

- Waste reception, handling and pre-treatment.

- Thermal treatment reactor.
- Gas and residue treatment plant (optional).
- Energy recovery plant (optional).
- Emissions clean up system.

Gasification, as such, sits between pyrolysis and combustion in that it involves the partial oxidation of the source material. This means that the oxygen is involved at amounts that are not sufficient to allow the material (e.g. waste for fuel) to be completely oxidised and full combustion to occur. The temperatures employed are typically above 650 degrees centigrade.

The process is largely exothermic (i.e. releasing energy, usually in the form of heat) but some heat may be required to initialise and sustain the gasification process. The main product is known as a syngas, which contains carbon monoxide, hydrogen and methane. The other significant product of gasification is a solid residue of non-combustible material (ash) which contains a relatively low level of carbon.

Varying the process allows control over proportions of the compounds and hydrogen in the syngas. Typically, the gas generated from gasification will have a net calorific value (NCV) of 4 – 10 MJ/Nm<sup>3</sup>.

Energy is recovered in one of two ways:

- The syngas is combusted and the hot gasses are fed through a heat exchanger where steam is produced. This is used to generate energy in a steam turbine.
- The syngas is refined to produce a high quality fuel which is typically used in a gas engine to produce electricity.

In simple terms, gasification turns waste into a useful fuel by heating it under controlled conditions, in contrast to incineration, which fully consumes the input waste with energy capture as a potential by-product. This process deliberately limits the conversion so it converts the waste into syngas that can be further processed for energy.

A stated advantage of technologies, such as gasification, is that they convert solid material into gasses and vapours which are less costly to handle, transport and store. The gasses will burn in boilers, gas turbines and reciprocating engines, increasing fuel flexibility and security. Another aspect of the technology is that capturing and combusting the methane (CH<sub>4</sub>) and carbon monoxide (CO) in syngas makes a useful source of energy which in combustion will produce mainly water (H<sub>2</sub>O) and carbon dioxide (CO<sub>2</sub>). Carbon dioxide is much less potent as a greenhouse gas, gram for gram, than methane is. The disadvantages of technologies, such as gasification, are that

they require heat input to drive chemical reactions that produce the syngas, thus some fuel must be fed back into the process.

In the UK, all waste incineration plant and ATT plant treating waste must comply with the Waste Incineration Directive (WID). The WID sets stringent emission controls with the objective of minimising the impacts from emissions to air, soil, surface and ground water on the environment and human health, resulting from the processes. The WID also covers the combustion of syngas produced from ATT processes treating waste.

The key requirements in the WID for the operation of a facility are:

- A minimum combustion temperature and residence time of the resulting combustion products. For MSW, for example, this is a minimum requirement of 850 degrees centigrade for 2 seconds.
- Specific emission limits for the release to atmosphere of the following:
  - sulphur dioxide (SO<sub>2</sub>)
  - nitrogen oxides (NO<sub>x</sub>)
  - hydrogen chloride (HCl)
  - volatile organic compounds (VOCs)
  - carbon monoxide (CO)
  - particulate (fly ash)
  - heavy metals
  - dioxins.
- A requirement that the resulting fly ash which is produced has a total organic carbon content of less than 3%.

## Identification of Issues

### Location of Proposed Development

The application site is within the former Drakelow C Power Station that is previously used land. The most recent previous use, for a coal-fired power station, has many similar characteristics to the current proposal in terms of the generation of electricity. The sub-station, which the proposed development would utilise, was previously supplied by the power station and is currently of a scale that is of regional significance.

In relation to the allocation of the site at Drakelow for 2,239 dwellings in the SDLPS and how the potential environmental impacts of the Renewable Energy Centre could impact on the delivery of housing there, the housing allocation is the largest in the Plan and is critical to the delivery of the whole SDLPS growth strategy. This allocation incorporates land that was subject to outline planning application 9/2009/0341 which includes a masterplan for the land for up to 2,239 dwellings and associated development, including a

retirement village, an employment park, two local centres, a new primary school, associated landscaping and highways infrastructure. This application was granted permission by SDDC in December 2012.

The proposed development would be located approximately 200m from the south-west corner of the scheme permitted by SDDC. There is an allocation within the emerging local plan for employment uses of some land which is on the southern part of the former Drakelow site in closest proximity to the Renewable Energy Centre. Planning permission has also been granted for a CCGT Power Station (200m to the west) and a solar farm (275m to the west).

The application assesses the potential cumulative impact of the proposed development on the surrounding environment, taking into consideration the ES assessments which have been considered in relation to other proposed developments. The overall conclusion is that this proposal would not contribute a significant impact, which I have no reason to dispute, and I am satisfied that the proposal conforms with the strategy of the WLP. I am satisfied therefore that the proposal does not conflict with those requirements and would utilise a derelict, brownfield and former industrial site, and would assist in the regeneration of a large former power station site.

## **Need**

As has been explained above, a main objective of European and national legislation, and guidance on waste management, is to reduce the volume of waste being sent to landfill. For some forms of waste, such as paper, wood and plastic, there is a growing number of facilities being established to recycle that material; however, the problems remain, with residual waste that cannot be managed in these facilities. This is the waste that is left over when all the recycling now possible, at not excessive cost, has been done. This generally means the environmental costs of further separating and cleaning the waste are bigger than any potential benefit of doing so. The residual waste could either go to energy recovery or, as a last resort, landfill. Energy recovery from residual waste has a lower greenhouse gas impact than landfill. It would therefore be considered higher than landfill in the waste hierarchy and the preferred option for managing residual waste in terms of minimising potential climate change impact.

The proposed gasification technology, in this case, requires that waste material has specific properties and will therefore require pre-treatment of the waste. The proposed plant would be fuelled using BRF, which is produced by the mechanical treatment and shredding of commercial and industrial waste. BRF is a residual product where all potentially recyclable material has been removed by prior to treatment upstream of the proposed facility. I am satisfied that the fuel will be non-recyclable waste only. I understand that the demand for this fuel source in the UK is now primarily for export to Europe, in particular, Netherlands, Denmark and Sweden with approximately 2.4 million



tonnes exported in 2014. The application states that *“forecasts indicate that the demand for this product will not reach the supply levels available and there will continue to be surplus tonnage”*.

The ES goes on to say:

*“Demand for BRF, such as the fuel that would be used at the Proposed Development in the UK, is currently almost all from Europe. The main markets are the Netherlands, Denmark and Sweden. Demand from these markets will rise as new plants are being constructed in Sweden (reported increase in demand to 2.5 million tonnes by 2016) and the need for residual waste BRF is growing as recycling throughout Europe increases. Exports reached a historic high of 2.37 million tonnes in 2014. However this leaves another 45 million tonnes of supply in the UK market as identified by DEFRA.*

*It is forecasted that demand will not reach the supply levels available and that there will continue to be surplus tonnage”*.

Policy W1b of the WLP is a relevant consideration here, which states that waste development will be permitted if the development would help to cater for the needs of the local area, in terms of quantity, variety and quality, as part of an integrated approach to waste management. The policy goes on to state that waste development catering, primarily for the needs of other areas, will be permitted only in certain stated circumstances.

The technical evidence paper titled “Towards a Statistical Basis for the Waste Plan” which was published jointly by this Council and Derby City Council in March 2013 to assist in the preparation of the WLP, indicates that a total of approximately 22,427,000 tonnes of C&I waste will arise over the new Waste Plan period. The study finds that from 2019-20 onwards the amount of existing capacity available to handle C&I waste in Derby and Derbyshire becomes limited and there will be increased need for facilities in Derbyshire to manage this waste as an alternative to landfill.

The most conservative current estimate provided by the Derbyshire Waste Partnership (Waste Forecasting Report 2013-2026, March 2013) suggests that that over 1 million tonnes of C&I waste arisings are generated annually in the County. If indicative recovery targets are met, a minimum of 680,000 tonnes per annum of effective treatment capacity will be required as a matter of urgency. This scheme would process a gross figure of approximately 169,000 tonnes annually, and would contribute to meeting Derbyshire's need to divert waste from landfill. In addition, provided that recovery schemes do not undermine recycling efforts, the reduction of any remaining residual landfilling (i.e. beyond the diversion target) would be fully in accordance with the waste management hierarchy. Accordingly, I consider that the proposal would provide such a facility and I am satisfied that it meets the requirements

of the first part of Policy W1b of the WLP. I am also satisfied that there is a clear need for more facilities to recover the energy contained in BRF as an alternative to disposal at landfill to ensure waste is managed as high up the waste hierarchy as possible.

The emerging new waste plan will be seeking to extend the current waste management system in the County to increase the amount of waste which is reused and recycled, whilst further reducing the volume of waste sent to landfill, so it is accepted that there remains a need (in principle) for new facilities which fulfil these requirements. This is further supported by recent evidence (Residual Waste Infrastructure Report – High Level Analysis, Eunomia (2011)) that suggested that there is *“currently around 13 million tonnes of residual waste treatment capacity either ‘operating’ or ‘under construction’ in Great Britain, estimating around 22 million tonnes capacity gap (per annum) between residual waste arisings and the amount of treatment infrastructure capacity either ‘operating’ or ‘under construction’.”* The report also suggests that this capacity gap will decrease to just under 11 million tonnes (per annum) by 2020 if the waste treatment capacity, that has planning consent (around 12 million tonnes), reaches financial close and begins construction.

The ES indicates that the principal waste stream would be C&I waste. It is accepted that the proposal is technically capable of processing the identified waste stream. The use of the residual waste stream in the manner proposed would avoid any need for the material otherwise to be disposed of by landfill, and would therefore help to encourage conformity with the waste hierarchy in compliance with Government policy and the targets for landfill diversion.

I am satisfied that there is capacity within the County to accommodate the proposed renewable energy plant without compromising this objective, on the basis that the plant would be receiving residual waste post recycling. I am also satisfied that the proposal would not compete with local recycling.

### **Sustainable Waste Management**

The Planning Statement provides an assessment of the proposal in the context of current international, national and local policy, and for the evaluation of the proposed development, in particular, the merits of the proposal against the provisions and requirements of the EU WFD 2008/98/EC, the NPPW, the Waste Management Plan for England and the NPPF (in terms of the presumption in favour of sustainable development in general).

An important consideration in the assessment of the sustainability of waste management proposals is the source and type of waste to be managed and how it is to be treated. The applicant considers that the proposal represents a sustainable waste management development, being a form of renewable energy generation, and that it would conform to the waste hierarchy. It would

direct waste away from landfill, produce a beneficial product in the form of electricity and also potentially in the form of piped thermal energy. In this case, the applicant states that whilst recycling is rated higher against the principle of the waste management hierarchy, there now exists, within the market, a supply of residual waste that arises after the recycling process and is either being exported to be recovered outside the UK or is being diverted for disposal. In both these instances this is not generally supported as sustainable waste management. It is evident from Government guidance that energy from waste is seen as an important development for the future with similar support given to the recovery of value aspect of renewable energy schemes. I am satisfied that this proposed renewable energy scheme would not compete with existing local recycling and reuse schemes and would pull waste out of less environmentally sound disposal routes, particularly landfill but also incineration with insufficient energy recovery.

The Government sees a long term role for energy from waste both as a waste management tool and as a source of energy, and acknowledges that to be consistent with the first principle, this needs to be based on energy from waste that at least constitutes recovery not disposal. This is an important consideration and to be classed as 'recovery' within the meaning in the WFD, an energy from waste 'recovery operation must be one *"the principal result of which is waste serving a useful purpose by replacing other materials which would otherwise have been used to fulfil a particular function, or waste being prepared to fulfil that function, in the plant or in the wider economy"*. Annex II of the Directive sets out a non-exhaustive list of recovery operations, which include *"use principally as a fuel or other means to generate energy"*, numbered "R1". (R1 is the definition in the WFD for a 'recovery' operation. For Non-municipal waste incinerators, designation as R1 depends on criteria set by the Environment Agency).

I have asked the applicant to justify why it considers its proposal to be 'recovery' and has responded as follows:

*"The qualification criteria (set out in the Waste Framework Directive (WFD)) outlines that it is the substance that is being treated which triggers an R1 application. Annex II of the WFD sets out the criteria to define a recovery operation (in line with the waste hierarchy) at section R1 where it states that this will include waste used principally as a fuel or for other means to generate energy. This is further defined by the footnote which clearly states that this applies only to the processing of Municipal Solid Waste (MSW) and that MSW fuelled plants should meet the threshold R1 calculations it sets out. As you are aware, The Directive's main aim is to avoid a loss of recyclable materials where MSW is simply sent to an incinerator. However, the proposed plant at Drakelow will use a Refuse Derived Fuel where all potentially recyclable material has been removed prior to treatment upstream of our facility i.e. the fuel will be non recyclable waste only. This process negates the*

*need to undertake a calculation as stipulated in R1 and this is made clear in the footnote in Annex II and has been tested by the High Court in Dorothy Skrytek vs. DCLG and others where His Honour Judge Stephen Davies confirmed that R1 applies to 'black bag waste' only".*

I do not disagree with the applicant here, and I also note from that Judgment the following statement:

*"It is important to note that, in order to obtain planning permission, it was not necessary for the facility to be within the "recovery" category at the date it starts operating. The Directive, the 2011 Regulations, and the policy documents listed in note 1 at [2] above make it clear that the hierarchy does not have to be followed slavishly. Article 4(2) of the Directive (reflected in Regulation 12(2) of the 2011 Regulations) provided:*

*"When applying the waste hierarchy...Member States shall take measures to encourage the options that deliver the best overall environmental outcome. This may require specific waste streams departing from the hierarchy where this is justified by life-cycle thinking on the overall impacts of the generation and management of such waste."*

I also note the following from the Judgment:

*"Initially, the proposed plant [Sinfin] will generate electricity which will be fed into the grid. Just generating electricity does not qualify a plant to be treated as a recovery process. To qualify, a plant has to raise its energy efficiency by also exporting heat. In my view, it would be unusual for the operator to sign up customers to take any heat produced by the plant at the outset. Potential customers are likely to wait to see whether the plant comes up to expectations in terms of the amount of heat that it produces and the reliability of supply of the heat. Once they are satisfied on these points, then contracts to take the heat may well be signed. It is in the financial interests of the operator of the plant to secure customers to take any heat generated. Once heat is being exported, the operator of the plant can return to the Environment Agency to have the plant reclassified as an energy recovery facility".*

The applicant has confirmed that the Renewable Energy Centre would provide both electricity to the national grid and thermal energy. I have no doubt that the electricity will be provided on the basis that the proposed development is in relatively close proximity to an electricity sub-station. I accept that the delivery of thermal energy is dependent on customers for CHP emerging (similar in principle to the situation relating to the Sinfin plant/others in the country). However, the proximity of the consented Drakelow Park Scheme to the application site provides a realistic prospect of a substantial uptake of thermal energy use from the proposal being achieved in due course, in conjunction with the future progression of that scheme. I am satisfied that the

Drakelow Park Scheme would be within easy reach of this renewable energy scheme, thus making it relatively efficient to transport the thermal energy. I also note that the plant has been designed with the appropriate thermal coupling for distribution of the heat energy. I have no reason to dispute the feasibility and I am satisfied that the applicant has shown that he intends to ensure the thermal energy is promoted as a commodity.

“Planning for Sustainable Waste Management” encourages energy from waste facilities in areas which allow them to use heat as an alternative or additional energy output to electricity. I am satisfied that the proposed Renewable Energy Centre would be located so that there is good potential for the thermal energy output to be effectively used within the future mixed use community of the Drakelow Park Scheme.

The generation of electricity from a non-fossil fuel source is welcomed. It is noted that other new developments on adjacent parts of the former power station are likely to provide opportunities for the thermal energy from the facility also to be used in a beneficial manner.

The application also states that approximately 90% of the ash generated by the gasification process would be reused as a secondary aggregate. This would accord with Government mineral and waste planning policy, and adds to the sustainability credentials of the proposal.

With respect to sustainability, it is also evident that greater use of waste derived fuel within the UK would also decrease the volume of such waste being exported to other countries, reducing the distance travelled by the waste and therefore its overall carbon footprint.

The ES also makes reference to the Government supported policy to produce renewable energy as a significant factor in support of the proposal. Although the gasification process does not use fossil fuels to create energy in the same way as coal-fired power stations, I do not regard this proposed system as fully renewable in its energy source. I would not dispute that it might displace some direct fossil fuel consumption (at a power station), nor that some of the waste would originate from renewable sources. The ES claims that the proposal would have electricity generating capacity of 15MW and thermal output of between 6MW and 9MW, which is equivalent to providing *“to the annual electricity consumption of approximately 23,000 homes and heat for approximately 5,000 if the heat is exported”*. The use of the waste in the manner proposed would lead to a significant reduction in CO<sub>2</sub> emissions compared to the same amount of waste being landfilled.

### **Operational Life**

The application states that the operational life of the gasification plant would be 25 years. This statement is reflected in the publication from Defra (2014)

“Energy from Waste. A guide to the debate” that acknowledges that plant is built with a minimum planned lifetime typically between 25 – 30 years. Whilst there is a difference between the physical life and planned life of plant, nevertheless, the options for waste management may significantly change, so there may be limitation in the efficiency and performance of ATT against possible improvements to the economics of sustainable waste management markets. In response to this issue, should planning permission be granted, I have recommended a condition to control the endurance of the plant use under the permission to be granted to a 25 year period from its first use. This would ensure that the planning authority could examine whether the further use of gasification is appropriate at the location having regard to environmental considerations at that time.

I now turn to the broad issue which has to be examined in determining this application and the overall environmental acceptability of the proposal on the locality in which this particular application site is situated. The planning application is accompanied by an ES which has assessed the following topics:

- Air Quality
- Noise
- Transport
- Landscape and Visual
- Ground Conditions.

The following assessment addresses individual topics in the order they are reported in the ES. Each heading contains a summary of the conclusions of the ES followed by the Officer assessment. For each topic, the ES has set out the technical assessment, baseline conditions, sensitivity/importance of receptors, magnitude of impact/changes, the significance of effects and proposed mitigation. The assessments have also examined the residual effects and cumulative effects.

The applicant scoped out from the ES the following topics of Environmental Impact Assessment (EIA) because the effects of the proposed development were considered unlikely to be significant.

- Ecology and Protected Species
- Cultural Heritage
- Flood Risk.

However, an appropriate level of assessment of these topics has still been undertaken which form part of the planning application, which I refer to below.

### **Air Quality**

The impact of emissions from the gasification is a main concern of the objection, in particular that the emissions could have an impact on the nearest

residents of Branston. What can be emitted into the atmosphere from an energy from waste plant has for a number of years, been tightly controlled under the WID (2000/76/EC). There are stringent limits for a number of potential pollutants, as well as demanding operating requirements which help to minimise pollution, that apply to all plants thermally treating waste whatever the technology. These requirements have been recast virtually unchanged into the Industrial Emissions Directive (IED) (2010/75/EU).

The Town and Country Planning system is concerned with control of the development of land. The regulator of waste management processes is the Environment Agency and, in the assessment and determination of such proposals, the two regulatory regimes complement each other. The applicant is in the process of submitting an application to the Environment Agency for an Environmental Permit. In assessing the Environmental Permit application, the Environment Agency will address the essential issues relating to emissions/health impacts which objections relate to. Neither the Environment Agency nor SDDC, which has an environmental health function, have objected to this application.

The air quality assessment for the proposed development considered the following:

- construction dust impacts;
- emissions to air from the gasification plant and the impact of emissions on human health and habitat sites; and
- operational impacts of emissions on human health and local air quality.

The assessment has focussed on the effects from the construction of proposed development and the effects from the operation of the gasification plant and subsequent emissions to air.

The ES confirms that the impacts associated with the construction of the proposed development have been assessed using the IAQM. The operational impacts associated with the combustion sources have been assessed using a dispersion modelling using the Air Dispersion Modelling System (ADMS) (Version 5.1) model to predict the impact at ground level utilising five years of meteorological data from the East Midlands Airport (2009 to 2013).

Traffic-related air quality impacts during construction and operation were screened out of the assessment due to the low number of vehicles involved (worst case scenario 100 workers being on site during peak times and around 100 HGV movements a day). Based on the estimated vehicle movements to and from the site, and those required on-site to operate the proposed facility (60 HGVs two-way movements per day and around 40 two-way light vehicle movements), I wholly accept the conclusion that the vehicle related sources would not have much impact on air quality. The number and type of vehicle

movements on-site would not be dissimilar to that for a typical industrial business in the area or which might otherwise occupy the site. The handling and movement of waste on the site could give rise to odours in some circumstances but this would be undertaken within the buildings where appropriate design and good management could prevent adverse impacts on the surrounding area. I also note that this threshold is well within the guidance provided by the IAQM and Environmental Protection UK (EPUK) on indicative criteria for requiring an air quality assessment. I also note that the site is not located within an air quality management area.

For sensitive habitat sites, which include the River Mease SAC, the impacts of airborne NO<sub>x</sub>, SO<sub>2</sub> and Hydrogen Fluoride (HF) have been assessed, as well as acidification and nutrient nitrogen deposition. Predicted concentrations and deposition rates have been compared to background information and relevant critical levels, and critical loads for the sensitive habitats identified.

The assessment identifies the nearest receptors, which are Barn Farm (675m) and an isolated property (610m). The nearest high density residential development is located to the north at a distance of approximately 850m which comprises the southern part of Burton upon Trent. It also acknowledges that the development of the Drakelow Park Scheme masterplan would introduce new residential properties within 400m of the site and have been included in the air quality assessment. The ES describes the site location as rural and the existing air quality as being good.

The ES provides a detailed assessment of the ambient air quality baseline conditions for the local area, a review of background monitoring data and an analysis of the local condition that will affect the dispersion and dilution of emissions arising from the proposed development. This included:

- The dispersion and dilution of emissions.
- Local wind climate for the location.
- Topography.
- Background air quality and concentrations for South Derbyshire and East Staffordshire. The assessment confirmed that to date, no Air Quality Management Areas (AQMA) have been declared by SDDC.

### **Assessment of Construction Impacts**

The ES acknowledges that any form of demolition or construction activity has the potential to generate dust emission and thereby cause annoyance to people in the vicinity of the site.

The impact of dust generated during the construction phase of the development has been assessed using the methodology described by the IAQM Construction Dust Guidance 11.



The most common air quality impacts relating to construction activities are as follows:

- dust deposition, resulting in the soiling of surfaces;
- visible dust plumes, which are evidence of dust emissions;
- elevated PM10 concentrations, as a result of dust generating activities on site; and
- an increase in concentrations of airborne particles and nitrogen dioxide due to exhaust emissions from diesel powered vehicles and equipment used on-site (non-road mobile machinery, NRMM) and vehicles accessing the site.

The IAQM methodology considers four aspects that may give rise to dust emissions:

- demolition of existing structures;
- construction of the new facilities;
- earthworks; and
- 'trackout' of dust on vehicles.

The sensitivity of the area takes account of a number of factors:

- the specific sensitivities of receptors in the area;
- the proximity and number of those receptors;
- in the case of PM10, the local background concentration; and
- site-specific factors, such as whether there are natural shelters, such as trees, to reduce the risk of wind-blown dust.

The ES provides a detailed assessment of the effects.

All major buildings associated with the power station have been demolished and no demolition activities are required.

I am satisfied with the ES conclusions; future occupiers would not be affected by construction effects. There are no nationally or internationally designated habitat sites in close proximity to the site. The nearest habitat sites are an area of Ancient Woodland (Grove Wood) to the south of Walton Road. At its nearest point the Ancient Woodland is 130m from Walton Road. The Drakelow Nature Reserve, a local wildlife site, is located to the north-west of the site.

The nature reserve is assumed to comprise the gravel pits to the north, extending to the track to the south of the gravel pits. At its nearest point the nature reserve is 410m from the site boundary.

Since there are no major structures requiring demolition on the site, the impact of demolition has been screened out under the ES assessment. There are no sensitive human receptors within 350m of the site boundary and within 50m of the route used by construction traffic. Therefore, the impact of earthworks, construction and trackout will not be required for assessing the effects of construction activities on human receptors. There are no ecological receptors within 50m of the boundary of the site, or within 50m of a road used by construction traffic up to 500m from the site entrance. Therefore, the effects of construction activities on sensitive habitats have also been screened out.

Given the lack of sensitive human receptors and habitat sites in close proximity to the site, I have no reason to dispute the conclusions that the construction dust effects would be 'not significant' and no further assessment is required.

### **Assessment of Operational Effects**

Emissions to air from the gasification plant have been modelled using the UK ADMS Version 5.1 and a five year meteorological data set from East Midlands Airport (2009 to 2013).

Initial results are presented as the maximum predicted within the modelling domain. However, this represents worst-case conditions. Therefore, to assess the effects at sensitive receptors locations, the impact of NO<sub>x</sub> emissions on ground level and NO<sub>2</sub> concentrations are also provided. The locations of the sensitive receptors include existing residential receptors and new residential receptors occupying the Drakelow Park Scheme.

The gasification plant would result in emissions to atmosphere from the main plant stack and will comprise combustion related emissions (e.g. NO<sub>x</sub>, SO<sub>2</sub>, CO, VOCs, particles and trace substances, such as metals and dioxins and furans (PCDD/Fs)). There would be three gasification units each with a dedicated flue. These flues would be combined within a single multi-flue stack. Therefore, there is effectively a single emission point. Within the IED, emission limits are set for two averaging periods: daily and half-hourly. The half hourly average recognises that short term elevated emissions may occur due to routine process variables; however, over the longer term, the daily average values must be achieved. The air quality standards and guidelines used in this assessment largely refer to averaging periods of one hour or greater; in addition, the UK air quality standards for several pollutants also have a number of 'allowable' occasions in which the limit value may be exceeded within any one calendar year before the standard is deemed to have been breached. Therefore, short term emissions occurring for less than 30 minutes are likely to have no significant effect on short term air quality, particularly as the number of excursions of the emission concentrations to the 30 minute value is effectively limited by the Directive. On this basis, the impact

assessment is based upon daily average values for emissions from the gasification plant.

The construction of structures under the proposed development may affect the dispersion of emissions from the gasification plant. The proposed single large structure has a maximum height above ground level of 23m to the apex and 17.5m to the eaves. Therefore, an average building height has been assumed for the purposes of the dispersion modelling. Details of the building structure that has been included in the dispersion model to allow for building downwash effects.

Although the topography of the area is relatively flat, information on terrain features has been included in the model in order to account for the influence of terrain features on the dispersion from the stack.

In addition to assessing the impact of emissions on the 34 discrete receptors, the maximum predicted off-site concentration is also determined. Predicted concentrations are calculated across a 6km by 6km grid with a 50m (approximately 1.5 times the stack height) grid resolution.

The assessment acknowledges that in relation to impacts on humans, the pollutants of interest emitted from the gasification plant are primarily those set out in the WID (which has since been changed in the IED).

The ES provides a summary of the maximum predicted pollutant concentrations. This is the maximum predicted anywhere within the modelling domain and for the worst-case meteorological year for each averaging period. As a worst-case scenario, it is assumed that the gasification plant operates continuously at 100% load and with emissions at the maximum permissible. Concentrations are presented as the process contribution (PC) and are the additional contribution that the gasification plant provides to the pollutant concentrations. The predicted environmental concentration (PEC) is also provided which is the PC plus background pollutant concentrations (i.e. from other sources). For trace metals, it is assumed that each metal is emitted as the maximum permissible for each of the three groups and represents an absolute worst-case.

Having regard to the maximum predicted concentrations for regulated emissions which are predicted in the ES, I am satisfied that there will be no concentration of pollutants from the development at receptors which would exceed permissible limits.

### **Emissions and Health**

There is often a perception within communities in the locality of a proposed waste facility, that it would be bound to cause significant risks to human health. However, as Government advice indicates, the potential hazards as

particular cases can present, are usually manageable so as to prevent any occurrence of substantial health risks. Potential hazards to health and to the environment from waste to energy facilities typically concern emissions to air from the process itself and emissions through the traffic that is generated. The statutory Environmental Permit regime, which is governed by the Environment Agency as pollution control authority, complements the control over waste development provided by the Town and Country Planning system. It enables process controls to be imposed in order to limit emissions to acceptable levels for human health, and as well as for environmental receptors. The Environment Agency would generally take a precautionary approach to specific hazards, and has regard to any significant cumulative effects from combination or interaction with other sources of emissions. If the Environment Agency concludes, in any case, that emissions from a controlled process will not be sufficiently controllable by Permit requirements (so to prevent them causing harm to human health), it will refuse to issue a Permit.

As is mentioned above, the applicant, in this case, has submitted detailed information on emissions and air quality impact as part of the accompanying ES. The Agency is also in the process of considering an application for an Environmental Permit, and Public Health England (PHE) may provide comments to the Environment Agency for this, on the specifics of proposed facility. Whilst the County Council, as planning authority, and the Environment Agency, as pollution control authority, have powers and duties that complement each other, the operational regulation of waste to energy facilities is the responsibility of the Environment Agency.

It is reasonable to predict that consideration of emissions, air quality and health will not cause an impediment to the granting of an Environmental Permit for the proposed facility, since (a) the conclusions of all the relevant studies referred to in the ES are that the proposed development will have no significant effects on air quality during normal operating conditions, abnormal operating conditions or due to road traffic and that no significant cumulative effects are forecasted to occur, and (b) none of the statutory consultees in responding, regarding the planning application, have disputed the findings of the ES.

The NPPF advises that:

*“... local planning authorities should focus on whether the development itself is an acceptable use of the land, and the impact of the use, rather than the control of processes or emissions themselves where these are subject to approval under pollution control regimes. Local planning authorities should assume that these regimes will operate effectively.....”*

In the same vein, the NPPW 2014 states *“...Impacts to the local environment and amenity should be considered but it is not necessary to carry out detailed*

*assessment of epidemiological and other health studies on the basis that these controls would be provided through the pollution control regime.”*

*“Planning authorities should - concern themselves with implementing the planning strategy in the Local Plan and not with the control of processes which are a matter for the pollution control authorities. Waste planning authorities should work on the assumption that the relevant pollution control regime will be properly applied and enforced”*

The National Planning Guidance further expands on this by stating *“The focus of the planning system should be on whether the development itself is an acceptable use of the land and the impacts of those uses, rather than any control processes, health and safety issues or emissions themselves where these are subject to approval under other regimes. However, before granting planning permission they will need to be satisfied that these issues can or will be adequately addressed by taking the advice from the relevant regulatory body.”*

The above quoted advice confirms that the County Council should not seek to control processes or emissions itself where these are subject to approval under pollution control regimes, but rather should be satisfied before granting any permission (without having to resort to *“detailed assessment of epidemiological and other health studies”*) that the complementary permitting regime can adequately address those issues. Since advice is sought from the Environment Agency, through consultation on all waste facility planning applications, this can serve to provide the necessary satisfaction. In this case, the Environment Agency, in its consultation response, has not advised that there is any cause for concern regarding the permitting process. For this proposal, any Permit will have to be consistent with the WID.

Information on the WID is set out in Environmental Permitting Guidance on the Waste Incineration Directive (updated March 2010). The specific aim of the WID is to prevent or limit, as far as practicable, negative effects on the environment, in particular, pollution by emissions into air, soil, surface and groundwater, and any resulting risks to human health, from the incineration of waste. The WID seeks to achieve this high level of environmental and human health protection by requiring the setting and maintaining of stringent operational and technical requirements, and through the setting of specific emission limit values for facilities.

The WID requires that incineration plants shall be designed, equipped, built and operated in such a way as to prevent emissions into the air giving rise to significant ground-level air pollution, in particular, exhaust gases may only be discharged in a controlled fashion and in conformity with relevant air quality standards calculated in such a way as to safeguard human health and the environment.

The WID covers the site and the entire incineration plant, and imposes stringent requirements on the types of wastes permitted at the plant, their delivery and reception; combustion, abatement plant, residue handling, monitoring equipment and emission limit values. The WID also requires that the above requirements are achieved under the most unfavourable conditions, i.e. at the edge of the operational process design envelope.

There are European Community proscribed Emission Limit Values (ELVs) for incinerators, and the WID requires all plant to be designed, equipped, built and operated in such a way as to meet these ELVs. In terms of air quality, the objective is that all people should be effectively protected against recognised health risks from air pollution.

It is common for the County Council to ask potential developers to “twin track” its Environment Agency Permit applications to help provide a greater degree of confidence at the time of the planning decision that all pollution issues for the particular site and specific technology can be adequately addressed by the permitting regime. This is perhaps most important where an applicant is proposing to utilise a new, or uncommon technology in the design of its proposal.

“Twin tracking”, may also enable the Council to place greater confidence in the reliability and thoroughness of the content of the applicable ES, by clarifying, in advance of determination of the planning application, the view of the Environment Agency on the proposed technology in the given case, and the detailed operation of the permitting requirements.

While this applicant has not obtained a full WID permit at this time, it is understood that this is progressing so it is appropriate to draw confidence from the following factors:

- the plant will only be operable if a Permit which reflects the WID requirements summarised above is granted;
- the technology proposed to be utilised is not unique; and
- The Environment Agency has recent experience of directly comparable schemes which have been fully through the permitting process.

In summary, therefore, the County Council can be satisfied that the scheme will not have a significant impact on health since there is more than reasonable confidence that operational emissions will be adequately addressed by the environmental permitting regime. This understanding is triangulated by evaluation of the ES by the County Council, and the totality of consultation responses from the Environment Agency, District Environmental Health Officer and other statutory consultees on the planning application and ES.

### Operational Effects on Habitat Sites

The Environment Agency's H1 guidance states that the impact of emissions to air on vegetation and ecosystems should be assessed for the following habitat sites within 10km of the source:

- SACs and candidate SACs (cSACs) designated under the EC Habitats Directive;
- Special Protection Areas (SPAs) and potential SPAs designated under the EC Birds Directive; and
- Ramsar Sites designated under the Convention on Wetlands of International Importance.

Within 2km of the source:

- SSSI established by the 1981 Wildlife and Countryside Act;
- National Nature Reserves (NNR);
- Local Nature Reserves (LNR);
- Local Wildlife Sites; and
- Ancient Woodland.

SACs and SPAs are included in an EU-wide network of protected sites called Natura 2000. The EC Habitats Directive and Wild Birds Directive have been transposed into UK law by the Habitats Regulations.

Within 2km of the proposed site, there are Grove Wood (Ancient Woodland), and the Drakelow Nature Reserve (a local wildlife site, to the north of the proposed development). For these habitats, the maximum predicted impact anywhere within the habitat site is presented.

Grove Wood is an area of Ancient Semi Natural Woodland (ASNW) with a total area of 13.2 hectares. Drakelow Nature Reserve consists of old gravel pits and riverside meadow in the floodplain of the River Trent. It has been assumed that the local wildlife site is bounded by the River Trent and the track to the south of the gravel pits. It lies on a natural meander on the south side of the river just upstream of Burton upon Trent. Its location has made it an extremely important flyway for birds for many years and it now forms a significant link in a chain of wetland reserves along the Trent Valley. The variety of habitat attracts a wide range of species, including large numbers of wildfowl in the winter months, breeding and roosting cormorants and a range of smaller species, including reed warbler in summer and water rail in winter. During summer, the site is also rich in butterflies and dragonflies with all the commoner species being recorded here.

Within 10km, there is one European site, the River Mease, which is designated as a SAC. This is located approximately 8.5km to the south of the proposed development. As this is a linear feature, predicted impacts have

been assessed for 34 discrete points along the habitat site at approximately 500m spacing.

Natural England has not objected to the proposed development. Its comments relating to the scale and nature of the development, which are set out above, suggest that there are unlikely to be any air quality or water quality impacts on the River Mease.

The ES assesses the predicted maximum concentrations for NO<sub>x</sub>, SO<sub>2</sub> and HF in comparison to the relevant critical levels, as summarised below:

### **NO<sub>x</sub>**

For NO<sub>x</sub>, predicted concentrations at the River Mease SAC are very low given the distance of this habitat site from the proposed gasification plant location. Therefore, the effect of emissions on this habitat site is assessed as not significant using the Environment Agency's significance criteria (i.e. less than 1% of the critical level).

For the Ancient Woodland, the PC is 1.3% and the PEC is 56.7% of the critical level for the annual mean, and would be assessed as potential significant. However, it is unlikely that the critical level would be exceeded as the PEC is less than 70% of the critical level. For the less sensitive Drakelow Nature Reserve, the PC is 10.9% and the PEC is 66.2% of the annual mean critical level and just below 70% of the critical level. The predicted concentrations represent very worst-case conditions as follows:

- predicted concentrations are the maximum anywhere within the habitat site;
- predicted concentrations are the maximum for all five years of meteorological data;
- it is assumed that the gasification plant operates continuously at full load; and
- emissions from the gasification plant are the maximum permissible 100% of the time.

Therefore, it is concluded that the annual mean critical level for NO<sub>x</sub> would not be exceeded at the Ancient Woodland or Drakelow Nature Reserve as a result of emissions from the gasification plant.

For the 24-hour mean, effects on the River Mease and the Ancient Woodlands are assessed as not significant as the PC is less than 10% of the critical level. For the Drakelow Nature Reserve, the PC is relatively high compared to the critical level, being 35.1% of the critical level. Furthermore, it is assessed as 'potentially significant' as the PC is greater than 20% of the difference between the critical level and the background concentration (i.e. greater than 20% of the headroom). However, the predicted PEC is well below 75 µg m<sup>-3</sup>



and, given the worst case assumptions adopted for the assessment (as discussed above), it is unlikely that the short-term critical level would be exceeded.

## **SO<sub>2</sub>**

The River Mease and Drakelow Nature Reserve are not designated for sensitive lichen communities or bryophytes and the less stringent critical level for SO<sub>2</sub> of 20 µg m<sup>-3</sup> is adopted for these two habitats. Ancient Woodlands may provide habitats that support lichens/bryophytes and therefore the more stringent critical level of 10 µg m<sup>-3</sup> has been adopted for these habitats

Highest concentrations are predicted for the Drakelow Nature Reserve due to the proximity to the gasification plant and are 4.1% of the critical level. For this habitat, the PEC is 17.6% of the critical level. Therefore, effects are assessed as not significant. As for NO<sub>x</sub>, predicted concentrations of SO<sub>2</sub> at the River Mease SAC are not significant, being less than 1% of the critical level. At the Ancient Woodland the PC is 1.0% and the PEC is 28.0% of the more stringent critical level and effects are assessed as not significant.

## **HF**

For the weekly mean, predicted concentrations of HF at the River Mease SAC are assessed as not significant with the PC at less than 1% of the critical level. The predicted weekly mean PC at the Drakelow Nature Reserve and the Ancient Woodlands is 16.0% and 1.9% of the critical level. However, for the Ancient Woodland the PEC is less than 70% of the critical level and it is unlikely that this would be exceeded. For the less sensitive nature reserve, the PEC is in excess of 70% of the critical level but, given the worst-case conditions adopted for the assessment, it is concluded that it is unlikely that this would be exceeded.

Predicted 24-hour mean HF concentrations at all habitat sites are assessed as 'not significant' as the PC's are all less than 10% of the critical level.

## **Acidification**

There are no available critical loads for acidification for the River Mease SAC. However, the PC represents 0.3% of background deposition rates and it is concluded that the gasification plant would have no significant effects on the European site. For the Ancient Woodlands, the PC is 2.2% of the critical load and is potentially significant. The background deposition at the Ancient Woodland is almost twice the critical level and the PC represents 1.1% of the background acidification rate. Given the small contribution from the gasification plant and the worst-case assumptions adopted for the assessment, it is concluded that effects on the nearby Ancient Woodland, as a result of the gasification plant emissions, would be not significant.

### **Nutrient Nitrogen Deposition**

At the River Mease SAC, the PC represents 0.1% of the background deposition of nitrogen and in the absence of site-specific critical loads is assessed as 'not significant'. At the Ancient Woodland, the PC is predicted to be 1.2% of the lower critical level and 0.6% of the upper critical level. Given the worst-case assumptions adopted for the assessment, it is concluded that the effect of emissions on the Ancient Woodland is not significant.

At the Drakelow Nature Reserve, the PC is 3.1% of the lower critical level and 1.6% of the upper critical level. Since the habitat is a locally designated site, the upper critical level has been adopted. The PEC represents 82% of the upper critical level of which 81% comes from background sources. Therefore, it is concluded that the gasification plant would have no significant effect on the Ancient Woodland.

The Conservation (Natural Habitats &c) Regulations 1994 transpose the European Union (EU) Directive on Natural Habitats, and Wild Fauna and Flora (92/143/EEC) into national legislation. They afford a high level of legal protection to a variety of species that are considered important at a European scale. The Regulations identify European Protected Species and various habitats of importance within the EU, with important sites being designated as SAC. Any proposed development that may have a significant effect on a SAC (either direct, indirect, temporary or permanent) should be assessed in relation to the site's 'conservation objectives', i.e. the reasons for which the site is designated.

Under Regulation 48(1) of the 1994 Regulations, an "Appropriate Assessment" of the implications of the proposed development, in view of the site's conservation objectives, must be made in respect of any decision to be taken for any consent for a project (or a plan) or which either alone or in combination with other plans or projects would be likely to have a significant effect on a European Site, and is not directly connected with the management of the site for nature conservation.

Whilst Natural England has confirmed that the waste planning authority does not need to carry out an "Appropriate Assessment" because it is satisfied the predicted emissions from the development would not have a significant effect on the River Mease SAC, Appendix 1 of this report sets out the Screening report that concludes that a full Habitats Appropriate Assessment is not required. The recommendation of this report follows the conclusion of the screening report.

In conclusion, I consider that having regard to the location of the site and the distribution in the locality from the site of sensitive potential receptors, both human and habitat receptors, the effects of construction and operational activities would not be significant. I note that the Environment Agency and

SDDC has not objected to the air quality assessment so I have reason to disagree with the conclusion that the operational effects would not be significant from process emissions on sensitive human receptors or habitats sites for the gasification plant. On that basis I am satisfied that the proposed development is compliant with Policy W6 of the WLP and the requirements of the NPPW.

## Noise

The noise assessment considers the effects of operational noise from the proposed development on noise sensitive receptors. The assessment has been carried out in accordance with the relevant British Standards, as indicated in the National Policy Statements.

The prediction of noise assumes that all plant operations and noisy activity would occur continuously and simultaneously. In practice, this would not happen, and so the predicted noise levels used in the assessment are higher than would be expected to actually occur.

The noise assessment considers the likely significant noise effects associated with the operation of the proposed development. It has:

- Identified the sensitive receptors.
- Assessed the background noise levels in order to assess the impact of operational noise from the proposed development.
- Predicted the potential impacts through quantitative and qualitative assessment.
- Proposed mitigation measures.

The assessment defines the properties which are sensitive to noise and therefore would require protection from nearby noise sources. In terms of existing properties, a small cluster of houses to the south of the proposed development were identified as noise sensitive receptors, with the closest being approximately 700m away. The assessment acknowledges that the Drakelow Park mixed use development would generate a number of noise sensitive receptors and assumes that residential development may be constructed to the closest boundaries, which is reflected in noise assessment locations (NAL) which includes housing along the boundary of the proposed housing development.

The design of the of proposed development has evolved in response to potential noise emissions, in particular, the loading and unloading operations, such as loading bays which have located on facades away from receptors. The application also proposes close boarded fencing along the site boundary to act as a noise barrier to the delivery and collection vehicles, mobile plant and loading and unloading operations. It also states that appropriate building materials would enable suitable levels of attenuation in order to minimise

noise egress. All mobile plant would be fitted with directional white noise reversing alarms.

The assessment states that the dominant noise sources would be predominantly internal plant which have been considered on the following “room by room” basis:

- Fuel delivery bays.
- Main fuel store.
- Thermal hall.
- Ash handling bay.
- Ash silos.
- Compressor/dryer.
- Turbine hall.

The following external noise sources have been considered:

- Exhaust stack.
- Air cooled condensers (ACC).
- Turbine oil and generator cooler.

I am satisfied that the noise assessment has considered the existing noise environment at the local receptors and the predicted noise emissions levels of all plant operating simultaneously.

The assessment of operational noise levels has been undertaken in accordance with BS4142:2014 and against fixed guideline noise level limits, as detailed in BS8233 and by the World Health Organisation. The assessment also considers the Planning Practice Guidance to compare the predicted effects with likely subjective responses.

I have no reason to disagree with the conclusion of the assessment that states the noise levels would be below the assumed fixed noise level limits and the subjective assessment is most likely to be described as ‘Noticeable but not intrusive’, such that noise can heard, but not cause any change in behaviour or attitude. The BS4142 assessment, which assesses the likelihood of adverse impact, concludes that there is a low risk of adverse impact, and that the predicted effects would be minor and not significant.

The design of the ventilation louvres has been informed by the noise assessment to help lower the noise levels which would reduce noise break out from within the building. The proposed development would be subject to an H1 Environmental Permit. The usual Permit requirements, in terms of noise, are set in ‘IPPC Horizontal Guidance Notes H3, Part 1 Regulation and Permitting’ and ‘Part 2 Noise Assessment and Control’ and are intended to promote the use of Best Available Technology (BAT) to reduce all emissions

to as low as practically possible. Incorporation of these measures would reduce noise emission levels and further reduce the likelihood of an adverse impact.

The Planning Practice Guidance includes a table summarising the subjective responses that may result from the development. The guidance recognises that *“the subjective nature of noise means that there is not a simple relationship between the noise levels and the impact of those affected”*. Having due regard to the predicted noise emissions and the measured ambient noise levels, the subjective assessment is likely to be described as “noticeable but not intrusive” such that noise can be heard but does not cause any change in behaviour or attitude. I consider, on that basis, that the proposed development may slightly affect the acoustic character of the area but such that there would not be a perceived change in the quality of life.

I consider that the proposed development is compliant with Policy W5 of the WLP and meets the requirements of NPPW.

### **Transport**

The Site is located close to the A38 trunk road and would have a more direct connection to this major road upon the opening of the Walton Bypass that is expected to be constructed in the future, in association with the progression of the Drakelow Park mixed use development scheme. Although a final timescale is yet to be confirmed, the new bypass is currently expected to become operational during 2017. Until then, all vehicle journeys to and from the site would be over the route to the north onto the A444. Access to the Site would be via the existing access into the former Drakelow C Power Station off Walton Road.

The Site is well located in relation to key arterial routes and the road network, within the vicinity of the site, is to a generally good standard, with reasonable forward visibility.

The A38 to the west of the Site links Birmingham to Derby and the A444, which runs to the east of the site, links to the A514, Swadlincote and to the M42/A42.

To the south of the Site runs the C359 Walton Road, a single carriageway road of approximately 6.5m width with grass verges and no footways. Walton Road currently provides access to the A38 via Walton-on-Trent, crossing the River Trent via the Walton Bailey Bridge, and crossing the mainline railway. Walton Bailey Bridge has a three tonnes weight limit, a 7'6" width restriction, and a signalised shuttle operation controlling vehicular movements over it.

Further south of Walton, the Walton Road meets the A513. Access to the A38 for high vehicles is restricted by the railway line, which crosses over the A513, with a 14'3" (4.4m) height restriction in place.

At its northern end, Walton Road forms a T-junction with Rosliston Road, which, in turn, runs north towards Burton and south to Rosliston. To the north it crosses the 'Ivanhoe' freight rail line which permits 44 tonnes HGVs. Rosliston Road has traffic calming measures as it runs to the A444 junction.

Walton Road, along with the other roads in the area, lies within an area wide 7.5 tonnes "access only" environmental weight restriction. The restriction applies to the area bounded by the A444 to the north and east, the A513 to the south and the River Trent to the west. However, the weight restriction does not apply to any operations that are based within the area and, as such, HGVs travelling to and from the site of the proposed development are exempt from the weight restriction.

The ES assesses the likely significant effects of the proposed development in terms of traffic and transportation, and incorporates a summary of elements of the CTMP. The assessment considers the potential effects of the development's traffic on the road network within the study area and has been informed, in part, by the findings of the supporting TS. It sets out the methodologies adopted in the assessments that have been undertaken and identifies how the baseline conditions have been established before considering the likely significant effects resulting from the development. Mitigation measures are identified to prevent, reduce or offset any significant effects, and the likely residual effects, after these measures have been implemented are set out.

The methodology adopted in assessing the traffic and transportation effects of the proposed development has been set out and undertaken in line with the advice contained within the DfT's 'Guidance on Transport Assessment' and the Institute of Environmental Assessment 'Guidelines for the Environmental Assessment of Road Traffic'.

The traffic generated by the proposed development would be at its greatest during the construction phase. The traffic generated during the operational life of the facility would be made up of fuel delivery vehicles, occasional maintenance and inspection vehicles. During the decommissioning phase, traffic would again be heavier whilst the work is being undertaken.

Construction traffic would be a mixture of HGVs, passenger vehicles and over-sized vehicles transporting the key components. Prior to the Walton Bypass being constructed, vehicles will access the site via the A444.

Vehicles transporting the large components would be escorted either by Police or a transportation company. A CTMP is proposed to ensure that the effects arising from the traffic generated during the construction of the Renewable Energy Centre are controlled and minimised.

The ES has assessed the significance of the effects caused by the construction phase of the proposed development. Where there are seen to be adverse effects, mitigation measures have been outlined to reduce as far as possible the impact of the construction phase.

Assuming a two year construction period, the forecast number of HGV movements at key milestones will be 100 trips in each direction, spread evenly over a 10-hour working day, equating to 10 two-way trips per hour.

In addition, during the construction period, it is anticipated that the site would employ approximately 100 construction workers at key milestones and up to 25% would be expected to travel in the typical road network peak hour period (i.e. 0800 hours – 0900 hours). Therefore, assuming a worst case scenario, in which each worker arrives in a separate motor vehicle, approximately 25 workers' motor vehicle movements would be expected in that hour).

The number of HGVs associated with construction traffic is likely to have an adverse, but short term, impact on the local highway network. The applicant has proposed the submission of a detailed CTMP identifying how traffic will be managed throughout the duration of the construction period. I am satisfied with the implementation of these measures. The impact on pedestrians, cyclists and other road users during the construction period would be negligible.

The assessment finds that during the operational life of the facility, the proposed development would result in minimal changes in traffic volume on the surrounding network, with and without mitigation measures. Such measures would include agreed routeing and monitoring of HGV traffic. There would be no significant effects. The findings of the assessment demonstrate that all traffic could be accommodated on the local road network without compromising operational capacity or safety.

With regard to traffic generation when the facility under the proposed development is fully operational, it is anticipated that there will be a maximum of 60 two-way HGV movements per day.

With regard to the effects of traffic flow in respect of severance; driver delay; pedestrian delay; pedestrian amenity; fear and intimidation; and accidents and safety, all such effects are considered negligible.

## Land Quality

This section of the ES considers the effect of the proposed development upon land uses in the application site and surrounding area. The ES identifies the site as a derelict, vegetated parcel of land, formerly part of the Drakelow C Power Station, which comprises mounds of demolition material, two cooling tower bases (which extend off site), whilst the remainder comprises concrete hardstanding which were formerly occupied by buildings, yards areas and access roads associated with the Power Station.

The ES presents an assessment of historical and current use of the proposed development in relation to contaminated land and the underlying geology and hydrogeology. It also provides an assessment of the likely effects of the proposed development in terms of water quality, hydrology and flood risk, including the effects of surface water and ground water quality, as well as surface water and ground water resources.

The ES uses a risk assessment and identification of pollution linkages (sources, pathways and receptors) as part of the assessment and sets out the significance criteria against the environmental setting of the site including geology, hydrogeology, hydrology and flood risk. It also uses a conceptual model to identify potential pollution sources, exposure pathways, receptors.

Based on the above, the ES assesses potential effects during the construction, operational and decommissioning phases of the development against:

- Disposal of contaminated spoil.
- Risks to Groundworkers.
- Risk to public.
- Risk to Surface Water Resources.
- Contamination of ground during construction/operation.
- Plant uptake of contamination.
- Risk to future site users.
- Risks to building and services.

The ES concludes that the main effects of the proposed development, without mitigation, would be minor adverse, not significant. In response to the assessment, the ES suggests a number of mitigation measures, including:

- Quantitative risk assessment that would identify the need for remediation.
- A site waste management plan.
- Construction Environmental Management Plan (CEMP).

The ES concludes that the previous site investigations of the wider area of the Drakelow C Power Station have indicated that the soils and perched ground



water have been impacted by the activities undertaken on site and, as such, there is considered to be a medium risk from contamination. The ES refers to further investigatory works that could be undertaken as part of the pre-construction works to confirm ground conditions and contamination on site. I note that the Environmental Health Officer and Environment Agency do not object to the assessment but in the event of planning permission being granted, I consider that a remediation strategy would be required to ensure the site is suitable for development and that there are no unacceptable risks to the environment, ground workers, the public and future site workers. I am satisfied that, subject to specific conditions, the effects of the proposal on the land quality would be negligible. I do not disagree with the conclusions of the land quality assessment.

### **Landscape and Visual Impacts**

I am satisfied that in the ES, the baseline landscape character of the area has been adequately described and the likely visual effects have been assessed in accordance with an approved methodology.

The visual impact assessment has been undertaken in accordance with an approved methodology and that the range of viewpoints are representative of key receptors and were adequate for assessing the overall impacts on the wider area. The landscape and visual impact assessment adopted a 10km radius from the central point of the site, refined to 5km radius for detailed assessment, which included a cumulative assessment of the approved Drakelow Park scheme and Drakelow gas power station.

### **Landscape Assessment**

The Landscape Visual Impact Assessment (LVIA) correctly identifies that the site is located within both the Mease/Sence Lowlands National Character Area (as defined by Natural England), and the Village Estate Farmlands Landscape Character Type (LCT) as defined in the Derbyshire Landscape Character Assessment. The assessment concludes that locally, the site contrasts with the wider rural landscape by virtue of the site's past history. Locally, the site is well screened by mature woodland belts that are probably a relic of the former Drakelow Park and estate that included Drakelow Hall, which was demolished in 1934 and later replaced by the Power Station. However, following the demolition of the Drakelow C Power Station in the early 2000s, the site and immediate area is characterised as 'brownfield land'. The land is still criss-crossed by numerous pylons and power lines so overall, I would conclude that the sensitivity of the site to development of this type is low. The sensitivity of the wider LCT is assessed as medium, and with a small magnitude of change as a result of this development proposal, I would concur with the view that the impact on the landscape is minor/moderate and therefore not significant. Whilst cumulatively, this development will contribute to a much more significant redevelopment of the former power station site and introduce greater impacts, the nature of the site is such that these impacts are locally

well contained by existing vegetation and, as such, I do not consider there to be significant impacts on the wider landscape character of the area.

### **Visual Impact Assessment**

Visual impacts have been assessed through the analysis of Zones of Theoretical Visibility (ZTV) and the use of photographic material from key sensitive viewpoints in the surrounding area.

Whilst the ZTV is potentially extensive, on site the majority of this 'theoretical' visibility is in fact screened by intervening vegetation, which is extensive locally, and settlement. Ten viewpoints have been selected to inform the assessment of visual effects and reflect a range of visual receptors, including residents, footpath users and road users.

Whilst many of these receptors are assessed as having a high/medium sensitivity, the magnitude of change is likely to be small because of the screening around the site, resulting in predominantly minor/moderate effects and again not significant. I would agree with these judgements as on-site observations confirm that the site is well screened by existing vegetation. Overall, I am satisfied that, subject to specific conditions, the adverse effects of the proposal on the landscape and on visual amenity could be reduced to acceptable limits.

I am satisfied that the proposed development has been designed to minimise the impacts on the landscape and visual effects in terms of character, scale and massing, and has carefully considered the adjacent approved Drakelow Park mixed use and CCGT Power Station developments. The applicant has designed the development through a range of measures, including:

- inclusion of the majority of the plant components within a single large portal frame building to result in a less industrial appearance and to mirror the planned commercial and industrial uses on the adjacent Drakelow Park mixed use development site;
- incorporation of the three required stacks into a single, wider stack;
- design of the main building to give the external appearance and impression of a two-storey building;
- incorporation of fencing and landscaping to limit views of vehicle movements within the site; and
- the colours and materials to produce an attractive commercial building.

The colour of the buildings would also be a key factor affecting the visibility and visual impact of the proposed buildings. In the event of planning permission being granted, I consider that a dark recessive colour would be the most effective in mitigating any visual impact. Overall, I am satisfied that, subject to specific conditions, the effects of the proposal on the landscape and on visual amenity would be moderate. I do not disagree with the conclusions

of the landscape and visual assessment that there would be no significant effects on landscape or visual receptors during the construction or decommissioning and operational phases of the proposed development.

The cumulative assessment concludes that when assessed against and in combination of the CCGT Power Station, the Drakelow Park mixed used development and the solar park in all cases there would not be a significant effect on landscape character or visual amenity as predicted.

I am therefore satisfied that the evidence in the landscape and visual assessment demonstrates that there would not be any material harm in terms of its location, design or appearance to the local landscape, townscape or to the visual receptors. I consider that the proposed development's design and appearance has been carefully considered in light of the baseline landscape and visual amenity conditions to minimise any adverse effects. In terms of the design quality of the proposed development, I consider that it is of a commendable quality given the industrial characteristics of the site. As it has been demonstrated that it will screen the majority of the existing sub-station, it is also my opinion that it will serve to enhance this corner of the site.

On that basis, the proposed development is compliant with Policy W7 and the requirements of the NPPW.

### **Cultural Heritage**

The applicant has provided a cultural heritage desk based appraisal which has examined the potential impact of the proposed development on the known heritage assets both within the site and surrounding area, of which a number of listed buildings have been identified both within and outside Drakelow Park.

#### ***Listed or Other Buildings of Architectural or Historic Interest***

Prior to the power plant, the site formed part of the Drakelow Park estate although Drakelow Hall was demolished in 1934. There are a number of relic estate buildings and features which remain (stable block and cottages, the garden wall to the east of the sunken gardens and the gate piers and adjoining walls at the entrance to Drakelow Power Station), some of which are now listed, although the opportunity to appreciate these as being part of a historic parkland estate is greatly diminished given the demolition of Drakelow Hall and construction of the power station. The area to the north is also host to other industrial uses to the north-east which have further changed the character of Drakelow Park.

There are a number of other listed buildings located in the wider area, outside of the former Drakelow Park estate, such as Grove Farmhouse which sits approximately 1km to the south and three buildings within Branston Depot. However, from supporting visualisations submitted with the application, it is clear that the proposed facility is unlikely to be visible from these, due to the

natural topography and bands of existing mature trees. Whilst the stack may be visible from very specific viewpoints, it is considered that this will have a negligible impact on their settings, particularly as it will be seen in context with the many existing electricity pylons. It is also considered that the distance between the proposed development and the heritage assets is a mitigating factor. I am therefore satisfied that the proposed development would therefore have a small impact on the settings which would be at a slight (less than substantial) level of harm.

The desirability of preserving the setting of a listed building is an objective which the Council, as local planning authority, is required by Section 66(1) of the Planning (Listed Buildings and Conservation Areas) Act 1990 to have special regard in considering whether to grant planning permission for any development which affects a listed building or its setting. Even the slight level of harm, identified with respect to the settings in this case, conflicts to an extent with this preservation objective which Section 66 encompasses. Case law has clarified that to comply with duty under Section 66, this harm must be treated as a consideration of considerable importance and weight in the decision to be reached as to whether to grant planning permission on this application.

I am satisfied that the accompanying Cultural Heritage Appraisal provides a comprehensive assessment of the designated heritage assets and concerning any impact on their setting in accordance with the NPPF. I concur with the overall summary of the report in that the proposed development will cause less than substantial harm to the settings of the designated Heritage Assets.

In terms of compliance with Policy EV13 of the WLP, I am satisfied that regard has been paid to the need to preserve the setting of listed or other buildings of architectural or historic importance, and agree with the assessment that only a slight level of indirect harm arising for a small number of assets as a result of the proposed development. It is therefore considered that the proposed development is in compliance with the policy test, which weighs in favour of the proposed development.

### ***Conservation Areas***

The proposed development falls outside the boundaries of a designated Conservation Area. The Cultural Heritage Desk Based Appraisal identified 11 Conservation areas within the ES study area. The combined screening effects of the existing built environment, topography and vegetation, and the distance, I consider that there will be no impact on the setting of the Conservation areas as a result of the proposed development.

I am satisfied the proposed development does not conflict with SDLP Policy EV12 and is consistent with the NPPF.

### ***Archaeological and Heritage Features***

The Cultural Heritage Desk Based Appraisal identified a number of Scheduled Ancient Monuments in the study area and concluded that there is no potential for the proposed development to affect the contribution of any assets' setting to their importance or an appreciation to their importance. The appraisal, however, identifies Barrow Cemetery (2.5km south, south-west of the site) which is a bronze-age Barrow Cemetery. Whilst the proposed development would be potentially visible from the asset, I am satisfied that there would be only a small effect on the heritage significance of the asset which, when considered in context of the NPPF, would equate to less than substantial harm. I consider that the benefits of proposed development would be significant and sufficient to outweigh the harm.

With regard to the archaeological impacts, the report concludes that whilst there are known archaeological remains in the general area from the prehistoric to medieval periods, the extent of previous development on the site is such that there is little, if any, potential for the survival of below ground archaeological remains within the proposed development. I agree with this assessment and do not feel there is any need for further archaeological assessment or mitigation on the site.

### ***Historic Parks and Gardens***

The Cultural Heritage Desk Based Appraisal finds that there are no views between the proposed development and the two Grade II listed Parks and Gardens in the study area. In summary, the distance between the proposed development and the assets, existing built environment, topography and vegetation screening means that the settings on these assets will remain unaffected by the proposed development.

I am therefore satisfied that the proposed development does not conflict with SDLP Policy EV15: Historic Parks and Gardens.

### **Ecology**

The application is accompanied by a series of ecological surveys covering the site and surrounding area which included:

#### **An Extended Phase 1 Habitat Survey**

It highlighted that there were no internationally or nationally designated sites within the study area. There are four local wildlife sites located within 2km of the survey boundary, the closest being Drakelow Wildlife Reserve Local Wildlife Site. The proposed development would not affect any statutory or non-statutory designations. The survey also confirmed that there are no rare or notable habitats within the site or surrounding area that are important for nature conservation purposes. Habitats within the survey area were found to be predominately areas of semi-improved grassland to hardstanding. Remaining habitats were considered to be of no more than local importance.

### Great Crested Newt Surveys

Although no ponds are present within the site, three waterbodies were identified within 500m of the development boundary. An initial assessment of the suitability of the waterbodies within 500m of the proposed works area was carried out using the Habitat Suitability Index (HSI) methodology to determine the suitability of a waterbody to support breeding Great Crested Newts. The three waterbodies surveyed obtained scores ranging from 0.56 - 0.84 representing conditions which are considered to range from 'below average' to 'excellent' quality for Great Crested Newts.

The HSI assessment was followed by four surveys of the waterbodies during April 2014 and May 2014. I am satisfied that there was no evidence indicating the presence of Great Crested Newts, although low populations of common frog and smooth newt and good populations of common toad were recorded, confirming that the site is suitable to support breeding amphibians.

Based on the surveys undertaken, it is considered that there is only a low risk of Great Crested Newts being affected by the proposed development. However, as populations of the species can fluctuate naturally between years, an appropriately precautionary mitigation strategy would be implemented throughout the works to minimise the residual risk of the species being harmed or disturbed by the proposals.

I am satisfied, in any case, that there is a good history of surveys for reptiles having been undertaken across the site, over the last 10-13 years, and none were found. I acknowledge that these surveys are now very much out of date, and reptiles could have colonised the site since. The lack of previous evidence of reptiles would be a good indication that they are likely to be absent now, or at least that there is no reason to believe that an especially large or notable population will be found on site, as such a population would have previously been found. Consequently, it is likely that any population present will likely be small or transient and, given the nature of the wider site, can probably be accommodated elsewhere if found. As such, the approach proposed seems reasonable.

I am also satisfied that the applicant has undertaken DNA testing and this has confirmed that Great Crested Newts are not present on the site.

Should planning permission be granted, I have recommended a condition that would propose a scheme to secure the implementation of the proposed working method statement to ensure the protection of reptiles during construction phases.

I consider that there would not be any significant adverse environmental effects as a result of the proposed development and therefore no material harm to any identified interests of environmental importance is anticipated.

On that basis, the proposed development is compliant with Policy W5 of the WLP and meets the requirements of the NPPW.

The site is located within the National Forest and I consider it to be necessary to address Policy INF8 of the emerging SDLP, which would expect additional planting of trees. I appreciate that the application proposes some landscaping around the site, however, the emerging policy expectation is for a level of planting commensurate to the scale of development. This can be achieved through a financial contribution for off-site planting. The applicant has expressed a willingness to make a contribution for planting of £10,000 which would be secured, as set out in my recommendation, through a legal agreement. I am satisfied that the proposed development would thereby be in accordance with this emerging SDLP policy.

### **Flood Risk**

The Site for the Renewable Energy Centre is over 1ha in size and, as such, in line with the NPPF, a Flood Risk Assessment (FRA) has to be undertaken to support the application.

As the Site is situated in Flood Zone 1, the FRA is primarily focused on the appraisal of surface water management provisions and measures required to ensure that the proposed development does not result in increased flood risk in the surrounding area.

The strategic approach to flood risk and development is defined at a national level in the NPPF and at a local level in the SDDC Strategic Flood Risk Assessment (SFRA) Level 1 published in 2008. The SFRA re-confirms the Flood Zone 1 designation of the Site.

The FRA demonstrates that the Site is fully located within Flood Zone 1 and therefore classed as being at low risk of fluvial or tidal flooding. The development is classed as 'essential infrastructure' which is defined as 'appropriate development' in Flood Zone 1 and, as such, the proposed development passes the Sequential Test with no requirement to pass the Exception Test.

Detailed flood hazard analysis has shown that the proposed development is at low risk of flooding from groundwater, sewer or surface water. In addition, the hydrological analysis has confirmed that the development will not lead to an increase in surface water run-off and therefore have no adverse impacts upon flood risk in the local area.

Whilst, the FRA provides details of the existing level of surface water flood risk, as well as the potential surface water impacts to the site and the surrounding area post development. I note that the application is not accompanied by a detailed drainage scheme that is compliant with existing

guidance within the Defra non-statutory technical standards for SuDS (March 2015). I have therefore recommended a condition, should planning permission be granted, that requires information on the proposed drainage scheme.

### **Socio Economic**

The ES is accompanied by an assessment of the potential socio-economic effects of the construction, operation and decommissioning of the proposed development. These include:

- direct employment generation;
- indirect employment generation (supply chain and support businesses); and
- induced employment generation (non-basic jobs created/supported i.e. local businesses not directly related to the proposed development, such as shops and cafes).

The proposed development would create or support jobs in three distinct but interdependent ways:

- direct - jobs created as a result of work which forms part of the proposed development, e.g. construction workers on the site;
- indirect - the business to business supply chain which is required to make the proposed development happen and is a result of the development, e.g. the provision of raw materials; and
- induced - spending on local goods and services which are not directly related to the proposed development, by those directly and indirectly employed e.g. local shops, eating establishments and accommodation, etc.

### **Construction**

It is anticipated that the proposed development will generate a requirement for approximately £80 million of development costs that would include substantial amounts of labour costs.

In terms of indirect jobs during construction, it is anticipated that the proposed development could potentially support a further 40 jobs through the supply chain.

The level of people employed in the construction sector in South Derbyshire (4.4%) is in line with the National Average, also 4.4%, indicating that there is average scope for local people with relevant skills to be employed as part of the proposed development. Additionally, it is considered that there may be scope for jobs created as a result of the proposed development close to the site.



Overall, it is considered that during the construction of the Drakelow Renewable Energy Centre, it would assist in creating a significant amount of opportunities for local contractors which would result in positive socio-economic benefits.

### **Operation**

During operation of the facility, the site is likely to employ in the region of 20 people from the South Derbyshire/East Staffordshire areas.

In addition, the site would produce indirect employment opportunities to the companies that supply the processed waste material to the Renewable Energy Centre, as it is likely additional staff would be required to prepare it. In addition, there would be a likely requirement for additional HGV drivers to deliver the material and collect the ash from the site.

It is likely that the material for fuelling the Renewable Energy Centre would be sourced from both regional and national household waste centres and, as a result, there would be potential employment opportunities across the country as a result of the proposed development.

### **Conclusion**

In conclusion, I consider that the application site is appropriate for the type of activity proposed and that it accords with the provisions of the development plan. I am satisfied that there is currently a need for the proposed development. I am also satisfied that it can be operated in an environmentally acceptable manner.

The application site was part of the former Drakelow C Power Station which now benefits from a major mixed use redevelopment of which the application site adjoins the employment allocation of the scheme. There are other major schemes approved on the former Power Station site, including a gas turbine electricity power station and solar farm. There is, therefore, no objection in principle to the redevelopment of the site for an industrial type use. The design of the structure proposed would be of a modern industrial style and appearance with no obvious conflict with the relevant requirements of the local plan policies relating to the form of new development and redevelopment. The buildings and proposed stack would not have an undue impact on the landscape and visual character of the area, there would be no significant ecological impacts arising from the proposed development and any issues, relating to the disturbance of the ground from construction, could be addressed by appropriate conditions.

I have examined the traffic impacts of the proposal but I do not consider that the number of vehicle movements involved provide any substantive grounds for refusal.

The development in the form proposed, however, would have some adverse environmental impacts. The most obvious and direct adverse impacts from the construction of the proposed development would be temporary and could be reduced by conditions to control the dust and noise emissions.

The topic of potential impacts from gasification plant emissions on human health and the environment are issues which are open to considerable debate, although for this proposal, the topic should be understood in the context of the advice received from the Environment Agency, the main regulator of the processes to be operated in the plant, and the Environmental Permit.

Associated with this topic, there is perception of a risk to health, which should also be taken into account. However, as I have referred to, the Government supports the use of ATT Technology based solutions to waste. I therefore do not consider that an objection to the proposal on the grounds of adverse impact on human health can be substantiated by this Authority.

The need to provide facilities to manage the waste arisings in Derbyshire is very evident but the actual provision has to be done in ways that respect the Waste Hierarchy whilst affording sufficient protection against adverse impacts for the people and environment of the area. I am satisfied that there is a need for the proposed development and, in conclusion, I consider that the application site is appropriate for the type of activity proposed and that it accords with the provisions of the development plan.

(3) **Financial Considerations** The correct fee of £29,839 has been received.

(4) **Legal Considerations** This is an application submitted under Part III of the Town and Country Planning Act 1990 which falls to this Authority to determine as Waste Planning Authority.

The Conservation of Habitats and Species Regulations 2010 consolidate earlier regulations and now transpose the European Union (EU) Directive on Natural Habitats, and Wild Fauna and Flora (92/43/EEC) into national legislation. They afford a high level of protection to a variety of species that are considered important at a European scale. The Regulations identify European Protected Species and various habitats of importance within the EU, with important sites being designated as SAC. Any proposed development that may have a significant effect on a SAC (either direct, indirect, temporary or permanent) should be assessed in relation to the site's 'conservation objectives', i.e. the reasons for which the site is designated.

Under Regulation 21 of the 2010 Regulations, an "appropriate assessment" of the implications of the proposed development, in view of the site's conservation objectives must be made in respect of any decision to be taken

for any consent for a project (or a plan) or which either alone or in combination with other plans or projects would be likely to have a significant effect on a European Site, and is not directly connected with the management of the site for nature conservation.

Natural England has stated that the Waste Planning Authority does not need to carry out an Appropriate Assessment in accordance with Regulation 48(1), because it is satisfied the predicted emissions from the development would not have a significant effect on the River Mease SAC. Under the Officer's Recommendation below, nevertheless, includes a proposed resolution that would conclude the assessment work which has been carried out.

I do not consider there to be any disproportionate impacts on anyone's human rights under the European Convention on Human Rights as a result of this permission being granted subject to the conditions referred to in the Officer's Recommendation.

(5) **Environmental and Health Considerations** As indicated in the report.

### **Other Considerations**

In preparing this report the relevance of the following factors has been considered; prevention of crime and disorder, equality and diversity, human resources, property and transport considerations

- (6) **Background Papers** File No. 9.1590.1
- Application by TNEI Services Limited on behalf of Future Earth Energy received as valid on 30 June 2015.
  - Supplementary email from TNEI Services Limited dated 10 August 2015.
  - Letter from the Coal Authority dated 6 July 2015.
  - Letter from Staffordshire County Council dated 14 July 2015.
  - Email from Planning Policy dated 20 July 2015.
  - Email from Branston Parish Council dated 23 July 2015.
  - Letter from the Coal Authority dated 6 July 2015.
  - Letter from Derbyshire Flood Risk Management Team dated 22 July 2015.
  - Letter from Staffordshire County Council dated 14 July 2015.
  - Letter from Environment Agency dated 21 July 2015.
  - Email from Conservation and Design – County Design Quality dated 24 July 2015.
  - Email from Conservation and Design – County Landscape Architect dated 24 July 2015.
  - Email from Conservation and Design – County Archaeologist dated 28 July 2015.
  - Email from Development Plans dated 27 July 2015.

- Email from Conservation and Design – County Ecologist dated 31 July 2015.
- Email from Public Rights of Way dated 3 August 2015.
- Letter from South Derbyshire District Council dated 5 August 2015.
- Email from East Staffordshire Borough Council dated 24 August 2015.
- Letter from National Forest Company dated 11 August 2015.
- Email from Staffordshire County Council dated 10 September 2015.

(7) **OFFICER'S RECOMMENDATIONS** That the Committee resolves that:

- 7.1 The Screening Report, set out in Appendix 1 to this report, be **endorsed** as the conclusion of the assessment work relating to the application which is the subject of this report (Code No: CW9/0615/48) for the purposes of the Conservation of Habitats and Species Regulations 2010.
- 7.2 Planning permission for the proposal in the application which is the subject of this report (Code No. CW9/0615/48) be authorised to be **granted** subject to:
- (a) An agreement being entered into by the appropriate parties under Section 106 the Town and Country Planning Act 1990 to secure planning obligations considered by the Strategic Director – Economy, Transport and Environment and the Director of Legal Services, to make satisfactory provision for:
- a £25,000 financial contribution for use by the Council to enhance local elements of the South Derbyshire Greenway and related rights of way networks;
  - a £10,000 financial contribution for enhancement of tree or shrub planting within the National Forest in the vicinity of the application site; and
  - a traffic routeing scheme for minimising the impacts of Heavy Goods Vehicles during the construction and operational phases of the development.
- (b) A set of conditions substantially in the form of the draft conditions below:

**Commencement**

- 1) The development shall be commenced within three years of the date of this decision notice.

**Reason:** To comply with Section 91 of the Town and Country Planning Act 1990, as amended, and confirm the date of commencement.

- 2) The date of commencement of the development shall be notified to the Waste Planning Authority within seven days of the commencement.

**Reason:** To comply with Section 91 of the Town and Country Planning Act 1990, as amended, and confirm the date of commencement.

#### **Duration**

- 3) The use under this permission shall cease not later than the expiration of 25 years from the date of commencement of commercial operations at the development. The date of the commencement of commercial waste operations shall be notified to the Waste Planning Authority within seven days of the commencement.

**Reason:** To avoid the use of the facility to be developed under this permission continuing beyond 25 years duration without a prior assessment taking place of the case for the continuation of use.

#### **Approved Development**

- 4) The development shall be carried out in full compliance with the details contained in the Planning Application and accompanying Environmental Statement documents, submitted by TNEI Services, on behalf of Future Earth Energy on 26 June 2015 and received as valid by the Waste Planning Authority on 30 June 2015, except insofar as otherwise specified under the terms of the conditions below. For the avoidance of doubt, this condition requires the full implementation of all the mitigation measures proposed in the Planning Application and Environmental Statement.

For ease of reference, the documents under planning application comprise the following:

Application Form dated 25 June 2015

pla-116-037-PL-01d.

pla-116-037-PL-02b.

pla-116-037-PL-03b.

pla-116-037-PL-04b.

pla-116-037-PL-05a.

pla-116-037-PL-06b.

pla-116-037-PL-07a.

pla-116-037-PL-08a.

pla-116-037-PL-09a.

pla-Figure 1.3 - Site Context.

sup-Volume 2 Part 1 Figures-Figure 1.1 - Site Location Plan.

sup-Volume 2 Part 1 Figures-Figure 1.2 - Planning Application Boundary.

sup-Volume 2 Part 1 Figures-Figure 3.1 - Site Plan and Ground Floor Plan.

sup-Volume 2 Part 1 Figures-Figure 3.2 - First Floor Plan.  
sup-Volume 2 Part 1 Figures-Figure 3.3 - Proposed Elevations Front and Side.  
sup-Volume 2 Part 1 Figures-Figure 3.4 - Proposed Elevations Rear and Side.  
sup-Volume 2 Part 1 Figures-Figure 3.5 - Proposed Sections.  
sup-Volume 2 Part 1 Figures-Figure 3.6 - Roof Plan.  
sup-Volume 2 Part 1 Figures-Figure 3.7 - Existing Site Sections.

**Reason:** To clarify that the development must be carried out in full conformity with the details submitted.

### **Capacity**

- 5) The proposed development shall not receive more than 169,000 tonnes of material per annum. The operator shall maintain records of the tonnage of waste delivered to the site and shall make these records available to the Waste Planning Authority at any time upon request.

**Reason:** To control the impact of the development.

- 6) No waste shall be deposited or stored at the site except within the designated areas of the site.

**Reason:** In the interests of visual amenity.

- 7) Prior to the commencement of the use under the application, a study detailing the demand for, feasibility and commercial viability of, exporting heat from the gasification plant for use by local domestic, commercial and/or industrial users (together with the demand for such heat), shall be submitted to and approved in writing by the Waste Planning Authority. If the study concludes that exporting heat from the plant is not immediately feasible or commercially viable, then a timetable for the review of the study shall be agreed in writing with the Waste Planning Authority.

**Reason:** To facilitate full energy recovery.

- 8) No construction works shall be commenced until details of the composition and the colour of those materials have been submitted to and approved in writing by the Waste Planning Authority. The materials used in the construction shall accord with those approved details.

**Reason:** To control the design of the building.

- 9) The proposed waste management facility shall not be brought into use until the site boundary has been secured and treated in accordance with

details which shall have been submitted to and approved in writing by the Waste Planning Authority.

**Reason:** To protect the visual amenities of the area.

- 10) No external lighting shall be installed or operated except in accordance with a scheme that shall have been submitted to and approved in writing by the Waste Planning Authority.

**Reason:** In the interests of visual amenity and light pollution.

- 11) No clearing of vegetation shall be carried out in the period between 1 April and 31 August unless approved in writing by the Waste Planning Authority.

**Reason:** To protect nesting birds.

### **Hours of Delivery Removal and Maintenance**

- 12) No delivery of fuel, removal of ash or other waste, or routine maintenance, shall be undertaken outside the hours of 0700 hours to 1800 hours from Mondays to Saturdays inclusive, or at any time on Sundays or bank holidays.

**Reason:** To safeguard the amenity of local residents and adjacent properties and land users.

### **Construction Activities**

- 13) All demolition and construction activities shall be undertaken in accordance with the following:
- i) No construction or demolition works, movement of traffic, or deliveries to and from the premises, shall take place other than between 0700 hours and 1800 hours Mondays to Fridays, and 0800 hours to 1300 hours on Saturdays, and at no time on Sundays or bank holidays.
  - ii) No piling, blasting, dynamic compaction, or use of vibrating rollers, shall occur on the site before a scheme has been submitted to and approved in writing by the Waste Planning Authority, detailing the provisions to be made for the control of associated noise and vibration, so as to comply with guidance in British Standard BS5228 Noise and Vibration, and Control on Construction and Open Sites. All such activities shall take place only in accordance with the approved scheme.
  - iii) All construction (and any remediation) activities shall comply with the guidance in British Standard BS5228 Noise and Vibration, and Control on Construction and Open Sites. Efficient silencers shall be

fitted to, used and maintained in accordance with the manufacturers' instructions on all vehicles, plant, and machinery to be used on the site. Save for the purposes of maintenance, no machinery shall be operated with the covers open or removed.

- iv) During dry and/or windy weather, dust suppression methods, such as water bowsers or hosepipes, shall be used to prevent dust being blown off site. At such times as the prevention of dust nuisance by these means is not possible, the movement of vehicles, soils, or dusty materials shall temporarily cease until such times as the weather conditions improve so as to enable the recurrence of dust nuisance to be prevented by these means.
- v) All vehicles entering or leaving the site and carrying materials likely to deposit dust or mud on the highway, shall be adequately sheeted.
- vi) No vehicle shall leave the site unless in a clean condition, such that it does not deposit dust or mud on the highway. Any dust or mud deposited shall be removed daily.
- vii) No waste arising from demolition or construction activities shall be disposed of by burning on site.

**Reason:** To safeguard the amenity of local residents, adjacent properties and land users.

### Landscaping

- 14) No development shall commence before a scheme for landscaping of the site (including screening by shrub and tree cultivation) has been submitted to and approved in writing by the Waste Planning Authority. The scheme shall be implemented as approved within the first planting and seeding seasons after the completion of construction works. Within five years of the implementation of the scheme, any tree, shrub or hedgerow which die or become seriously damaged, diseased or are removed, shall be replaced with plants of the same species or such alternatives as may be approved by the Waste Planning Authority.

**Reason:** In the interests of the amenity of the local area and to ensure the development is adequately screened.

### Dust

- 15) No development shall commence until a Construction Phase Dust Management Plan has been submitted to and approved in writing by the County Planning Authority in consultation with the Waste Planning Authority. The approved Management Plan shall be adhered to at all times during construction of the facility.

**Reason:** To protect the amenities of the locality from the effects of any dust arising from the development.



### Noise Management Plan

- 16) No development shall commence before a Noise Management Plan, to control all noise generating activity duration both the construction and use periods under this permission, has been submitted to and approved in writing by the Waste Planning Authority. The Noise Management Plan shall set out noise limits for the development in accordance with the details set out in Chapter 6 of the Environmental Statement. The Noise Management Plan shall be implemented as approved. In the event that an operation or the use of any plant or equipment fails to comply with the limits set out in the Noise Management Plan, the operation or use shall cease until appropriate alternative noise mitigation measures have been approved by the Waste Planning Authority and implemented.

**Reason:** To safeguard the amenity of local residents, adjacent properties and land users.

- 17) The level of noise emitted from the site during construction shall not exceed 70 db LAeq during any 30 minute period between 0800 hours to 1700 hours Mondays to Fridays and 0830 hours to 1300 hours on Saturdays, measured at, or recalculated as, a height of 1.2m above ground level and 3.5m from the façade of any residential property or other noise sensitive building that faces the site. Construction noise at any other permitted time shall not, so measured, exceed 60 db LAeq during any 30 minute period.

**Reason:** To safeguard the amenity of local residents, adjacent properties and land users.

### Chemical Storage

- 18) Any facilities for the storage of oil, fuels or chemicals shall be sited on impervious bases and surrounded by impervious bund walls. The volume of the bunded compound shall be at least equivalent to the capacity of the tank plus 10%. If there is multiple tankage, the compound shall be at least equivalent to the capacity of the largest tank, vessel or the combined capacity of interconnected tanks or vessels plus 10%. All filling points, associated pipework, vents, gauges and sight glasses shall be located within the bund or have separate secondary containment. The drainage system of the bund shall be sealed with no discharge to any watercourse, land or underground strata. Associated pipework shall be located above ground and protected from accidental damage. All filling points and tank/vessels overflow pipe outlets shall be detailed to discharge downwards into the bund.

**Reason:** To minimise the pollution of watercourses and aquifers.

### Highway Safety

- 19) The construction process shall be carried out in accordance with the Construction Traffic Management Plan reference CTMP01/1 or such alternative Management Plan as may subsequently be agreed in writing with the Waste Planning Authority.

**Reason:** In the interests of highway safety.

- 20) From the commencement of the development, space shall be provided within the site for storage of plant and materials, site accommodation, loading, unloading and manoeuvring of goods vehicles, parking and manoeuvring of employees and visitors' vehicles, laid out and constructed in accordance with detailed designs which have been submitted to and approved in writing by the Waste Planning Authority. Once provided, the spaces shall be retained free from any impediment to their designated purposes throughout the construction period.

**Reason:** In the interests of highway safety.

### Ecology

- 21) Prior to the felling of any trees or clearance of vegetation:
- (i) Ecological studies, to update those which were carried out for the Environment Statement, should be carried out in accordance with a method statement which shall have been approved by the Waste Planning Authority.
  - (ii) The results of those studies shall be submitted to the Waste Planning Authority and, in the event that anyone or points of ecological interest which were not identified under the Environment Statement are related by the studies, a scheme of programmed mitigation measures shall be submitted to the Waste Planning Authority for its approval.

The mitigation measures shall be implemented as approved.

**Reason:** To ensure that the ecology of the site is protected from the effects of the development.

- 22) No development shall not take place until a survey of the application site, to establish the presence or otherwise, of any protected species, has been carried out. The findings and conclusions of the survey shall be submitted to the Waste Planning Authority for approval prior to the commencement of the development and, in any case, no later than one month of the completion of the survey. Should the survey reveal that protected species are present, measures shall be provided to mitigate and/or compensate for the impact of the development upon the identified

rare or protected species. The development shall thereafter be implemented in accordance with the approved findings and conclusions, including any measures to mitigate and/or compensate for the impact of the development upon the identified rare or protected species.

**Reason:** To provide protection to legally protected species.

- 23) Should the development hereby approved not have been commenced within one year of the date of this planning permission, a further wildlife survey of the site shall be carried out to update the information previously submitted with the application, together with an amended mitigation and/or compensation strategy to mitigate/compensate the impact of the development upon the identified rare or protected species. Such a wildlife survey and mitigation/compensation strategy shall be submitted to and be approved in writing by the Waste Planning Authority prior to the commencement of the development hereby permitted and thereafter, the development shall be implemented in accordance with approved wildlife survey and mitigation/compensation strategy as approved.

**Reason:** To provide protection to legally protected species.

### **Remediation Strategy**

- 24) No development approved by this planning permission shall take place until a remediation scheme to deal with the risks associated with contamination of the site, which includes the following components which shall each be submitted to the Waste Planning Authority, has been and approved in writing by the Waste Planning Authority:
- 1) A report of the results of a site investigation (taking onto account preliminary risk assessment and conceptual modelling of the site as provided within the Environmental Statement) to provide clarification and detailed assessment of the risks to each of the receptors that could be affected by contaminants of the site, including those potential receptors that are off site (including groundwater in aquifers and the River Trent).
  - 2) An options appraisal for remediation and risk reduction with full details of the measures proposed to reduce the risks detailed in the assessment under 1 above to negligible levels and to remediate any impacts on receptors through contamination from the site, and how they are proposed to be undertaken.
  - 3) A verification plan providing details of the data that will be collected in order to demonstrate that the measures set out in the appraisal in 2) above are complete and identifying any requirements for longer-

term monitoring of pollutant linkages, maintenance and arrangements for contingency action.

The scheme shall be implemented as approved.

**Reason:** The potential for contamination to be present on the site as indicated by 'Drakelow Renewable Energy Centre – Environmental Statement' (Future Earth Energy Ltd, June 2015). Any contamination present has the potential to impact on the 'Controlled Waters' receptors of groundwater in the underlying Secondary Aquifers and the River Trent. Consequently, the extent of any contamination and significance to these receptors should be assessed to determine the need for remedial actions.

National Planning Policy Framework (NPPF) Paragraph 109 states that the planning system should contribute to and enhance the natural and local environment by preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of water pollution. Government policy also states that planning policies and decisions should also ensure that adequate site investigation information, prepared by a competent person, is presented (NPPF, Paragraph 121).

- 25) No occupation of any part of the development shall take place until a verification report, demonstrating completion of measures set out in the approved remediation scheme and the effectiveness of the measures, shall be submitted to and approved in writing by the local planning authority. The report shall include results of sampling and monitoring carried out in accordance with the approved verification plan to demonstrate that the site remediation criteria have been met. It shall also include any plan (a "long-term monitoring and maintenance plan") for longer-term monitoring of pollutant linkages, maintenance and arrangements for contingency action, as identified in the verification plan. The long-term monitoring and maintenance plan shall be implemented as approved.

**Reason:** To ensure that any measures required as an outcome of the site investigation and risk assessment are completed to a satisfactory standard. National Planning Policy Framework (NPPF) Paragraph 109 states that the planning system should contribute to and enhance the natural and local environment by preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of water pollution. Government policy also states that planning policies and decisions should ensure that adequate site investigation information, prepared by a competent person, is presented (NPPF, Paragraph 121).

### Surface Water Drainage

26) No development shall take place until a detailed design and associated management and maintenance plan of surface water drainage for the site, to ensure full compliance with Defra non-statutory technical standards for sustainable drainage systems (March 2015), which shall include:

- Limiting the peak runoff rate from the development to the receiving surface water sewer and hence the receiving watercourse in accordance with S3.
- Provision of surface water run-off attenuation storage to accommodate the difference between the allowable discharge rate and development runoff from all rainfall events up to the 100 year plus 30% (for climate change) critical duration rainfall event in accordance with S7 and S8.
- Detailed design (plans, cross, long sections and calculations) in support of any surface water drainage scheme, including details on any attenuation system, and the outfall arrangements.
- Details of how the on-site surface water drainage systems shall be maintained and managed after completion and for the lifetime of the development to ensure the features remain functional
- Production of a plan showing above ground flood pathways. where relevant for events in excess of 1 in 100 year rainfall event in order to comply with S9.

has been submitted to and approved in writing by the Waste Planning Authority.

The approved drainage system shall be implemented in accordance with the approved detailed design prior to the use of the building commencing.

**Reason:** To ensure that the principles of sustainable drainage are incorporated into this proposal and sufficient detail of the construction, operation and maintenance of sustainable drainage systems is provided to the LPA in advance of full planning consent being granted.

27) No development shall take place until a reasonable assessment is undertaken of the existing drainage/sewer system within the curtilage of the development site, identified to be the means of surface water discharge from the site.

**Reason:** To ensure that surface water runoff can be appropriately discharged from the site.

**Decommissioning**

- 28) Decommissioning shall not commence until a Decommissioning Traffic Management Plan has been submitted to and approved by the Waste Planning Authority. Decommissioning shall be carried out in accordance with the approved Decommissioning Traffic Management Plan.

**Reason:** In the interests of highway safety.

**Mike Ashworth**  
**Strategic Director – Economy, Transport and Environment**

## Footnotes

1 The Environment Agency has drawn attention to:

- i. The risk management framework, provided in CLR11, Model Procedures for the Management of Land Contamination, for dealing with land affected by contamination.
- ii. The Environment Agency's document 'Guiding principles for land contamination' for the type of information that we required in order to assess risks to controlled waters from the site.
- iii. The Environment Agency's website at [www.gov.uk/environment-agency](http://www.gov.uk/environment-agency) provides more information.

2 Waste Material

The development works proposed may generate material which is classified as 'waste' under the Waste Management Licensing (England and Wales) (Amendment and Related Provisions) Regulations 2005. For further guidance on how waste is classified, and best practice for its handling, transport, treatment and disposal the applicant should refer to the Environment Agency's website: <https://www.gov.uk/managing-your-waste-an-overview>.

3 Pollution Prevention Measures

The proposed activity will require an Environmental Permit via which suitable pollution prevention measures will be enforced.

4 The Environment Agency has drawn attention to its 'Groundwater Protection: Principles and Practice' document, available from its website ([www.gov.uk/environment-agency](http://www.gov.uk/environment-agency)). This sets out its position on a wide range of activities and developments, including:

- Storage of pollutants and hazardous substances
- Solid waste management
- Discharge of liquid effluents into the ground (including site drainage)
- Management of groundwater resources
- Land contamination
- Ground source heat pumps

All precaution must be taken to avoid discharges and spills to ground both during and after construction. For advice on pollution prevention measures, the applicant should refer to guidance available on its website ([www.gov.uk/environment-agency](http://www.gov.uk/environment-agency)).

- 5 The Coal Authority has advised that the proposed development lies within a coal mining area which may contain unrecorded coal mining related hazards. If any coal mining feature is encountered during development, this should be reported immediately to The Coal Authority on 0345 762 6848. It should also be noted that this site may lie in an area where a current licence exists for underground coal mining.

Further information is also available on The Coal Authority website at:  
[www.gov.uk/government/organisations/the-coal-authority](http://www.gov.uk/government/organisations/the-coal-authority)

Property specific summary information on past, current and future coal mining activity can be obtained from: [www.groundstability.com](http://www.groundstability.com)

*[This Standing Advice is valid from 1<sup>st</sup> January 2015 until 31<sup>st</sup> December 2016]*

- 6 Derbyshire County Council does not adopt any private sustainable urban drainage systems (SuDS) schemes. As such, it should be confirmed prior to commencement of works which organisation will be responsible for SuDS maintenance once the development is completed.
- 7 Any works in or nearby to an ordinary watercourse (e.g. an outfall that encroaches into the profile of the watercourse) require consent under the Land Drainage Act 1991 (as amended) from Derbyshire County Council. Upon receipt of any application (including the legislative fee) Derbyshire County Council has an 8 week legislative period in which to make a decision and either consent or object the proposals. If the applicant wishes to make an application for any works please contact [Flood.Team@derbyshire.gov.uk](mailto:Flood.Team@derbyshire.gov.uk).
- 8 The construction process will require traffic management. Advice regarding management and off-site signing procedures should be sought from Derbyshire County Council's Traffic and Safety Section of the Economy, Transport and Environment Department, telephone 01629 538686.
- 9 Pursuant to sections 149 and 151 of the Highways Act 1980, the applicant must take all necessary steps to ensure that mud or other extraneous material is not carried out of the site and deposited on the public highway. Should such deposits occur, it is the applicant's responsibility to ensure that all reasonable steps (e.g. street sweeping) are taken to maintain the roads in the vicinity of the site to a satisfactory level of cleanliness.

**Statement of Compliance with Article 31 of the Town and Country Planning (Development Management Procedure) (England) Order 2015**

The Waste Planning Authority engaged with the applicant in a positive and pro-active manner based on seeking solutions to problems and issues arising



in the processing of this planning application in full compliance with this Article.

The applicant engaged with the County Council's pre-application service which included a number of meetings and a site visit. The meetings involved the Council's conservation and design team to specifically advise on the design and the potential impacts of the proposed development on the landscape, ecology and the local heritage asset. The applicant responded positively and significant improvements to the design of the building were included in design of the building

The applicant did not request a Scoping Opinion, consequently, the Waste Planning Authority did not formally have the opportunity to comment on the contents of the Environmental Statement. Where topics were scoped out of the Environmental Statement independent studies were undertaken to provide supplementary information to accompany the planning application.

The environmental information was taken into consideration by the Waste Planning Authority in reaching this decision.

## Appendix 1 - Habitat Regulations

### HABITAT REGULATIONS SCREENING ASSESSMENT IN RESPECT OF A RENEWABLE ENERGY AT THE SITE OF THE FORMER DRAKELOW C POWER STATION, DRAKELOW

#### 1. INTRODUCTION

##### The Habitats Regulations Assessment

- 1.1 The Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora, better known as “The Habitats Directive”, provides legal protection for habitats and species of European importance. Articles 3 to 9 provide the legislative means to protect habitats and species of Community interest through the establishment and conservation of an EU-wide network of sites known as Natura 2000. These are Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Conservation of Wild Birds Directive (79/409/ECC).
- 1.2 Articles 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans and projects likely to affect Natura 2000 sites. Article 6(3) establishes the requirement for an assessment of any plan or project not directly connected with or necessary to the management of a Natura 2000, site but likely to have a significant effect thereon, either individually or in combination with other plans or projects. Article 6(4) further requires that where in spite of a negative assessment of the implications of a Natura 2000 site and in the absence of alternative solutions, a plan or project must, nevertheless, be carried out for imperative reasons of overriding public interest (the IROPI test), including those of a social or economic nature. Article 6(4) further states that Member States shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected.

##### Stages and Approach of Assessment

- 1.3 This Assessment has been prepared in accordance with the European Commission Environment DG document *Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC*, referred to as the “EC Article 6 Guidance Document (EC2000)”.

- 1.4 The guidance within this document provides a non-mandatory methodology for carrying out assessments required under Article 6(3) and 6(4) of the Habitats Directive, and are viewed as an interpretation of the EU Commission's document "*Managing Natura 2000 sites: The Provisions of Article 6 of the Habitats Directive 92/43/EEC*", referred to as "*MN2000*".
- 1.5 In addition, in completing this assessment, regard has been had to the Conservation of Habitats and Species Regulations 2010 (2010 No. 490), Government Circular (06/2005): Biodiversity and Geological Conservation – Statutory Obligations and their impact on the Planning System (2005) and the general guidance set out in Habitat Regulations Guidance Note issued by English Nature in 1997.
- 1.6 The 'EC Article 6 Guidance Document' (referenced above), indicates that there are four broad stages involved in completing an assessment with the outcome of each stage indicating whether the next stage is required. These are:

**Stage 1 – Screening:** To test whether a plan or project, either alone or in combination with other plans and projects, is likely to have a significant effect on an international site.

**Stage 2 – Appropriate Assessment:** To determine whether, in view of an international site's conservation objectives, the plan (either alone or in combination with other projects and plans) would have an adverse effect (or risk of this) on the integrity of the site with respect to the site structure, function and conservation objectives. If adverse impacts are anticipated, potential mitigation measures to alleviate impacts should be proposed and assessed.

**Stage 3 – Assessment of Alternative Solutions:** Where a plan is assessed as having an adverse impact (or risk of this) on the integrity of an international site, there should be an examination of alternatives (e.g. alternative locations and designs of development).

**Stage 4 – Assessment where no alternative solutions remain and where adverse impacts remain:** In exceptional circumstances (e.g. where there are imperative reasons of overriding public interest), compensatory measures are to be put in place to offset negative impacts.

- 1.7 In undertaking this Habitat Regulations Assessment, this Authority has had regard to guidance set out in "Managing Natura 2000 sites "the provisions of Article 6 of the Habitats Directive 92/43/CEE" (also referred to as MN2000).

- 1.8 This guidance stresses limits to the areas and the species and habitats protected by the Habitats Directive as follows:
- **Spatial limit** Measures are aimed only at species and habitats located '*in the SACs*', or in some cases outside of the SAC if external events may have an impact on the species and the habitats inside the SAC.
  - **Limit of habitats and species concerned** The appropriate measures concern only habitats and species '*for which the areas have been designated*'. The aim is not therefore to take general conservation measures, but rather to take measures focused on the species and habitats which justified the selection of the special area of conservation.
- 1.9 This is an assessment under Regulation 61 of the Conservation of Habitats and Species Regulations 2010 (known as 'the Habitats Regulations') which transposes the requirements of the Habitats Directive into national law in in England and Wales. The assessment considers the effects of Derbyshire County Council (DCC) approving application code number CW9/0615/48 in relation to proposed development and operation of an 15 Mega Watt Renewable Energy Centre and associated infrastructure utilising Refuse Derived Fuel through gasification at the former site of the Drakelow C Power Station, Drakelow.
- 1.10 This assessment has regard to, and is in accordance with:
- The Habitats Regulations.
  - Good practice guides in undertaking such assessments, such as that published by Natural England, the Countryside Council for Wales and Scottish Natural Heritage.
  - All relevant guidance from the European Commission (as previously noted) and the UK Government.
  - Relevant decisions, for example, at Government level in Great Britain, and by Reporters/Inspectors.
  - Relevant judgments of the Court of Justice of the European Union, and the Courts in the UK.

## Relevant Documentation

- 1.11 The main documents which have been taken into account in this assessment include:

The planning application (CW9/0615/48) and related evidence, including the Air Quality Assessment of the Drakelow Renewable Energy Centre June 2015 and the Environmental Impact Assessment for Air Quality contained within the Environmental Statement dated June 2015.

## **2. THE REQUIREMENT TO ASSESS THE PROJECT UNDER THE REGULATIONS**

### **Is this a plan or project within the meaning of the Habitats Regulations?**

- 2.1 The grant of planning permission for the proposed development is considered to be a 'project' within the meaning of the Habitats Regulations. Plans and projects are not defined in the Directive but Regulation 61 implies that it is something that requires permission, or something that a competent authority may undertake. The EC guidance in '*Managing Natura 2000 Sites*<sup>1</sup>' indicates at 4.3.1 that a project is an intervention "*in the natural surroundings and landscape including those involving the extraction of mineral resources*".

### **Who is the competent authority?**

- 2.2 Regulation 7 defines competent authorities. Derbyshire County Council is the competent authority because it is the Waste Planning Authority responsible for determining the planning application, prior approval or considering any prior notification. The Authority has considered this scheme which is a planning application and, having considered the scheme, including its potential to effect the SAC (applying the requirements of the Habitats Regulations (S61(1))), has concluded that the proposal would not effect any European Site - the full detail of this assessment is considered later in this report.

## **3. EUROPEAN SITES POTENTIALLY AFFECTED**

### **Are any European sites potentially affected?**

- 3.1 There is only one European site potentially affected by the proposed development; the River Mease SAC. Derbyshire County Council is satisfied there are no other European sites that could be significantly affected due to the scale, nature and location of the site in relation to other European sites.
- 3.2 Given that there is potential for the SAC to be affected by the development, a 'screening' assessment is required to identify the potential effects of the project on the SAC and to assess whether there would be a likely significant effect on the habitats and/or species for which the SAC has been designated; these are often referred to as 'the interest features' of the site.

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<sup>1</sup> European Commission, 2000, *Managing Natura 2000 Sites: The provisions of Article 6 of the Habitats Directive 92/43/EEC*

### **Are any listed Ramsar sites potentially affected?**

- 3.3 The Government requires listed Ramsar sites to be treated as if they are fully designated European sites, as a matter of policy, when considering development proposals that may affect them (Paragraph 118 of the National Planning Policy Framework 2012). There are no listed Ramsar sites affected by the proposed development.

### **Is the project directly connected with or necessary to the management of any of the European or Ramsar sites potentially affected?**

- 3.4 No, the project is not necessary or connected with site management for nature conservation. EC Guidance MN2000<sup>2</sup> provides clear advice on this point at 4.3.3. Paragraph 12 of Circular 06/2005 indicates that the whole project would have to be so necessary or directly connected for it to be exempt. The project does not meet this requirement.

### **The River Mease SAC - Background**

- 3.5 The Mease catchment is a small catchment extending some 62.9km<sup>2</sup>. The channel itself rises at 130m above sea level in the Coal Measures of North West Leicestershire. The head of the site includes the lower reaches of the Gilwiskaw Brook which, like the River Mease, is designated as a SAC and a Site of Special Scientific Interest (SSSI) from Packington (located 1.25km south of Ashby de la Zouch). From its head, the River Mease flows approximately 25km westwards to its confluence with the River Trent at Croxall.
- 3.6 Due to the fast-flowing nature of the river, aquatic vegetation is sparse and marginal vegetation restricted to stands of floating sweet-grass *Glyceria fluitans* but these sections provide valuable habitat for bullhead (*Cottus gobio*). The middle reaches of the River Mease provide excellent habitat for a nationally significant population of spined loach (*Cobitis taenia*). This species is confined in its UK range to a limited number of catchments in central and eastern England. Submerged aquatic vegetation becomes more varied on the lower reaches of the river with river water-crowfoot *Ranunculus fluitans*, amongst other vegetation becoming increasingly frequent.

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<sup>2</sup> EC Guidance document "Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC. Published 2000.

3.7 The River Mease was designated as a Special Area of Conservation (SAC) in May 2000. Specifically the Annex I Habitats and Annex II Species for which the SAC is designated are as follows:

- Spined loach *Cobitis taenia* (1,149)
- Bullhead *Cottus gobio* (1,163)
- White-clawed (or Atlantic stream) crayfish (1,092)
- Otter *Lutra lutra* (1,355)
- Water courses of plain to montane levels with *Ranunculus fluitantis* and *Callitriche-Batrachion* vegetation (3,260)

3.8 The Conservation objectives for the SAC are drawn up by Natural England and are set out below:

Conservation Objectives for the River Mease SAC

With regard to the natural habitats and/or species for which the site has been designated ('the Qualifying Features' listed below);

**Avoid the deterioration of the qualifying natural habitats and the habitats of qualifying species, and the significant disturbance of those qualifying species, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving Favourable Conservation Status of each of the qualifying features.**

Subject to natural change, to maintain or restore:

- The extent and distribution of qualifying natural habitats and habitats of qualifying species;
- The structure and function (including typical species) of qualifying natural habitats and habitats of qualifying species;
- The supporting processes on which qualifying natural habitats and habitats of qualifying species rely;
- The populations of qualifying species;
- The distribution of qualifying species within the site.

**Qualifying Features:**

H3260. Water courses of plain to montane levels with the *Ranunculus fluitantis* and *Callitriche-Batrachion* vegetation; Rivers with floating vegetation often dominated by water-crowfoot

S1092. *Austropotamobius pallipes*; White-clawed (or Atlantic stream) crayfish

S1149. *Cobitis taenia*; Spined loach

S1163. *Cottus gobio*; Bullhead

S1355. *Lutra lutra*; Otter

3.9 The latest condition of the SSSI units within the SAC compiled by Natural England in January 2009 highlights that the status of the SAC is **unfavourable, no change**. Drainage and water pollution have been identified as causal factors affecting the condition of the River.

#### 4. SCREENING FOR LIKELY SIGNIFICANT EFFECTS GENERALLY

4.1 The test in Regulation 61 is whether the project is likely to have a significant effect on the River Mease SAC, alone or in combination with other plans or projects. This requires *inter alia* a preliminary examination<sup>3</sup> of any potential effects of the project on each qualifying interest feature of the European site and whether any effects would be likely and significant, alone or if not alone, in combination with other plans or projects.

4.2 As the competent authority, Derbyshire County Council needs to be mindful of existing case law and relevant judgments from the Court of Justice of the European Union (CJEU) (formerly the European Court of Justice (ECJ)) in relation to the application of the Habitats Regulations. In particular, the Authority notes the ruling of the ECJ in Case C-127/02 (the Waddenzee Judgment) which states at Paragraph 45:

*“any plan or project not directly connected with or necessary to the management of the site is to be subject to an appropriate assessment of its implications for the site in view of the site’s conservation objectives if it cannot be excluded, on the basis of objective information, that it will have a significant effect on that site, either individually or in combination with other plans or projects”.*

4.3 The Ruling also provides helpful clarification into the interpretation of the word ‘significant’; Paragraph 47 states that:

*“where such a plan or project has an effect on that site but is not likely to undermine its conservation objectives, it cannot be considered likely to have a significant effect on the site concerned”.*

4.4 The assessment is required to take account of the characteristics and specific environmental conditions of the site (see Paragraph 49 of the Judgment) and, as such, the decision needs to be made in the context of prevailing environmental conditions.

4.5 In light of the above authoritative ruling, Derbyshire County Council is mindful that in order to conclude no likely significant effect, it will be necessary to be confident that any ‘significant’ effects (ie: those which have the potential to undermine the conservation objectives) can be ‘excluded, on the basis of objective information’.

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<sup>3</sup> European Court of Justice in Case C-127/02 (the Waddenzee ruling) at paragraph 38



- 4.6 There is some inconsistency in the application of the ‘in combination’ test across competent authorities. For the purposes of this assessment, the “alone or in combination with other plans or projects” test is regarded as meaning the following.
- 4.7 Firstly, the test is only applied to plans or projects, that is, to proposals or incomplete plans or projects, not to completed developments which should be treated as part of the baseline and whose effects are already likely to be part of the existing environmental conditions in the area.
- 4.8 Secondly, that if a plan or project would be likely to have a significant effect alone, it is assessed alone (Regulation 61(1)). If it would have some effect on the site, which on its own would not be significant, it must then be assessed with the effects of other plans or projects whose effects alone would not be significant, to see if their cumulative effects would be significant. Even where a project is initially assessed alone, and in combination, an assessment may still be required before determining whether the proposal, alone or in combination with other plans or projects, would not have an adverse effect on the integrity of the site (Regulation 61(5)).
- 4.9 It is not possible to pre-determine all of the other plans or projects which would need to be assessed in combination until the effects of the subject project are understood. This is because there may be a wide range of plans and projects potentially applicable, but if they would not add in some way to the effects of the subject project, so as to make the subject project’s effects either more likely and/or more significant, they are irrelevant to the in combination test.

## **5. RELEVANT BACKGROUND TO A SCREENING FOR LIKELY SIGNIFICANT EFFECTS IN RELATION TO THE PROPOSED DEVELOPMENT**

- 5.1 The application is for the development energy generating facility housed in a modern style building on land within the former Drakelow C Power Station, south of Burton upon Trent, which would be designed to accept up to approximately 169,500 tonnes per annum of Biomass Rich Fuel (BRF). The site itself is located in excess of 8.5km from the River Mease. The site is located in the catchment of the River Trent which flows south-west to north-east, approximately 450m north of the northern site boundary. The catchment models indicate that surface water drainage from the site drains via a small southern tributary to the River Trent. However, drainage alterations associated with the former power station have changed natural drainage routes and it appears that the Site and surrounding area now drains via subsurface stormwater drains to the southern tributary outfall located to the east of the former treatment area.

At the point of discharge, the southern tributary drains a catchment area of 1.63km, extending in a south-easterly direction and including the majority of the former power station site. The watercourse is culverted beneath former power station development in the vicinity of the site. The northern tributary drains a much larger catchment area of approximately 31km<sup>2</sup>, extending eastwards to Swadlincote.

- 5.2 The former power station at the site and surrounding area was equipped with an extensive stormwater sewer system that discharges directly to the River Trent. The system was designed to accommodate runoff from the entire power station development, including areas of hardstanding. Demolition of the power station and partial restoration of some areas of land is expected to have resulted in a reduction in the peak rate of runoff from the site as a whole. As a consequence, existing stormwater drainage systems are likely to have excess capacity.
- 5.3 The development will be drained into the existing site stormwater sewer system and, subject to assessment of the condition of existing sewers and drains, there is no basis to suggest that the existing system could not accommodate surface water runoff from the development and surrounding area. In the event of sewer surcharging, particularly during periods of fluvial flooding in the River Trent, any excess water emerging from sewer systems would tend to drain away from the site under the influence of local topography. The development is therefore at low risk of flooding from sewer failure.
- 5.4 The development is to be established in an area currently underlain by impermeable concrete foundations of the former cooling towers and associated infrastructure at the site. The establishment of a new building and associated areas of hardstanding will, therefore, not result in any increase in the impermeable area within the site boundary.
- 5.5 Natural England, the Environment Agency and Derbyshire County Council's Flood Team have not raised objections subject to the inclusion of standard conditions for remediation and the management of surface water. Nonetheless, the proposed condition requested does require the submission of further information in respect of sustainable urban drainage design and management. Natural England advise the proposal is not necessary for the management of the European sites, the proposal is unlikely to have a significant effect on any European site, and can therefore be screened out from any requirement for further assessment.
- 5.6 Whilst the Authority notes the response received from Natural England (especially those relating to potential effect on the interest features of the SAC), the authority has undertaken this screening assessment as the competent Authority responsible for determining this planning application.

- 5.7 Due to the relatively remote location of the site and lack of sensitive receptors, both human and habitat receptors, the effects of construction activities would be not significant. The key findings of the air quality assessment of operational impacts concluded that there will be no significant effects from process emissions on sensitive human receptors or habitat sites for the gasification plant.

## **6.0 ASSESSMENT OF LIKELY SIGNIFICANT EFFECTS**

- 6.1 Development would lead to negligible increase in surface and foul water generation. In respect of potential for surface water effects during the construction phase of development, the applicant has proposed a Construction Environmental Management Plan (CEMP). This CEMP would be prepared and agreed by the Authority prior to the commencement of works, it will set out the intended methods of managing any possible environmental impacts arising from the construction of the scheme. Greater detail of the likely scope and detail of information to be included in any CEMP for the site is outlined in the applicants River Mease SAC Impacts. Subject to ensuring that a CEMP is required (this could be achieved through condition), there are unlikely to be any significant risks in respect of water quality within the SAC as a result of the proposed development scheme.

## **7.0 ASSESSMENT OF EFFECTS 'IN-COMBINATION'**

- 7.1 A conclusion of no likely significant effect has been determined in respect of the potential effects on water quality as a result of foul water and surface water drainage into the catchment of the River Mease SAC from the proposed development at this site alone.
- 7.2 Regulation 61 requires that the decision of likely significant effects is determined 'either alone or in combination'. In order for a plan or project to act 'in combination' it must have some effect on a site 'alone' which could combine with the effects of other plans and projects so as to make them either more 'likely' or more 'significant'.
- 7.3 In the case of the proposed development at this site, there will be no likely significant effect upon the River Mease SAC. Moreover, having reviewed existing site proposals and commitments, which could erode the headroom at Overseal Waste Water Treatment Works, the Authority remains satisfied that significant capacity within the treatments works discharge consent will remain, should this development be permitted (See Severn Trent Water Headroom Assessment). No other notable development schemes, which would act in combination within this proposal within Overseal catchment, are currently proposed, either

through the Local Plan or through the development management process.

- 7.4 As a result, the (insignificant) effects from this development will not combine with those from other plans and projects (as none have been identified) and will not give rise to significant cumulative impacts on the site.
- 7.5 On the basis of this screening assessment, I am satisfied that the proposed development will have no likely significant effect on the River Mease SAC. As such, I am satisfied (in line with comments received back from Natural England) that there is no requirement to undertake an appropriate assessment for the proposed development.

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