

Request for a Scoping Opinion
Old Kiln Quarry, East of Chieveley Motorway
Services Area, Berkshire
Proposed Energy From Waste Facility

November 2010

**Draft
Request for a Scoping Opinion**

Old Kiln Quarry, East of Chieveley Motorway Services Area, Berkshire

Proposed Energy from Waste Facility

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1.0 INTRODUCTION

- 1.1 This request for a Scoping Opinion has been prepared by Barton Willmore on behalf of Grundon Waste Management Ltd (Grundon) in relation to the proposed construction and operation of an Energy from Waste (EfW) facility at Old Kiln Quarry, east of Chieveley Motorway Services Area, to provide a sustainable waste treatment solution for West Berkshire and the surrounding environs.
- 1.2 The purpose of this document is to seek a formal Scoping Opinion from West Berkshire Council under Regulation 10 of the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 (the EIA Regulations) to assist the Applicant in determining the scope of the Environmental Statement (ES) required to accompany the proposed planning application for an EfW at the above site.
- 1.3 The main component of the planning application will be a twin stream Energy from Waste facility, with a nominal design capacity of up to 350,000 tonnes of waste per annum, generating a total output of approximately 33.5 MW of electricity with up to 29 MW being exported to the National Grid. A more detailed project description is set out in Chapter 2 of this document.
- 1.4 In accordance with Regulation 10 (2) of the EIA Regulations this document contains the following:
- a) a plan sufficient to identify the land (attached at **Appendix 1**)
 - b) a brief description of the nature and purpose of the Proposed Development and of its possible effects on the environment; and
 - c) such other information or representations as the person making the request may wish to provide or make.
- 1.5 It is envisaged at this stage that, amongst others, the following key technical stakeholders will need to be consulted as part of the formal scoping process:
- West Berkshire Council;
 - Berkshire Joint Strategic Planning Unit;
 - Environment Agency;
 - Highways Agency;
 - Natural England;
 - Thames Water;

- Chieveley Parish Council;
- North Wessex Downs AONB Management Board; and
- Berkshire, Buckinghamshire and Oxfordshire Wildlife Trust (BBOWT).

- 1.6 Contiguous with this request for a scoping opinion, Grundon will also be submitting a planning application on part of the site, the subject of the proposed EfW, for the regularisation of the existing quarry and an extension of that quarry to the south west.
- 1.7 The impending planning application, via Alliance Planning, will seek the continued extraction and processing of sand from Old Kiln Quarry incorporating a proposed 38 ha extension, the retention of the existing site access; site offices; weighbridge and welfare facilities.
- 1.8 The regularisation application will also seek the temporary diversion of Footpath CHIE/37/2 and the permanent diversion of the BOAT (Chieveley 49) and the retention of former advanced landscaping areas, associated works and the overall restoration of the site to agriculture with new tree and hedge planting.
- 1.9 The extension application will similarly be supported by an Environmental Statement, which has previously been scoped with the Local Planning Authority, and so therefore the ES for the proposed EfW at Old Kiln Quarry will be fully cognisant of the quarry extension and regularisation application and vice versa.
- 1.10 Whilst both the proposed EfW application and the regularisation applications occupy and overlapping area of the same site, the two proposals are both capable of determination on their own merits, whilst also being mutually compatible.

2.0 PROJECT DESCRIPTION

Grundon Waste Management Ltd

2.1 Founded in 1929 by Steven Grundon, this family owned company has grown from a local aggregate supply business into the largest privately owned waste management group in the UK.

2.2 Grundon Waste Management Ltd (Grundon) is involved in a wide range of waste collection, recycling, treatment and disposal services including:

- Waste minimisation consultancy advice;
- Waste collection, including non-hazardous and hazardous waste;
- Material recovery facilities;
- Waste transfer stations;
- Hazardous waste treatment;
- Green waste treatment;
- Clinical waste incineration and high temperature steam treatment;
- Recovery via Energy from Waste; and
- Disposal of residuals via hazardous, non-hazardous and inert landfill.

2.3 In addition to waste management, Grundon has maintained its interests in minerals development with five quarries across the South East. The quarries provide sands and gravels, clay and special products such as Henham cobbles, decorative shingles/chippings and Coxwell gravels for pathways.

2.4 The company operates an Environmental Management System across all of its sites to ensure that each operation is carried out to minimise its environmental impact. Grundon is implementing an Integrated Management System which encompasses Quality (ISO 9001), Environment (ISO 14001) and Health and Safety (OHSAS 18001). All of Grundon's operational sites have either achieved or are working to achieve certification by 2012. The company also works with local liaison groups, reflecting its role as a local employer and part of the community.

Lakeside Energy from Waste facility, Colnbrook

2.5 Grundon's joint venture (with Viridor) Energy from Waste (EfW) facility at Colnbrook was handed over by the contractor in January 2010 and is now fully operational.

- 2.6 The facility is capable of recovering energy from over 410,000 tonnes of residual waste per year from local authorities and businesses. A small amount of electricity is used to power the facility itself whilst the remainder, approximately 34MW, is exported to the National Grid, providing enough electricity for 50,000 homes. To give this figure some perspective, the electricity exported is more than sufficient for all households in Slough.
- 2.7 Lakeside EfW has also been designed with the potential to export surplus heat, thus making it a combined heat and power (CHP) plant, as and when the local infrastructure becomes available to support this process.
- 2.8 The design of the Lakeside EfW, together with Grundon's approach in terms of liaising with the local community, has resulted in the receipt of two prestigious awards – the 'Innovation in design of a waste management facility' award at the 2009 Letsrecycle Awards for Excellence in Recycling and Waste Management and the winner of the 'Community Benefit' category at the Royal Institute of Chartered Surveyors (RICS) South East Awards 2010. This design success has given Grundon confidence to utilise the same architects who designed the Lakeside facility in the development of the proposed EfW facility at Old Kiln Quarry, Chieveley.

Project Description

- 2.9 Grundon Waste Management Ltd is proposing an Energy from Waste (EfW) facility at Old Kiln Quarry, east of Chieveley Motorway Services Area. It is proposed to comprise a twin stream mass burning incinerator with a capacity of 350,000 tonnes per annum; producing a total output of 33.5 MW of electricity, with up to 29MW being exported to the National Grid, which is equivalent to the electricity consumption of approximately 50,000 homes. To put this in the context of West Berkshire, the electricity exported would be sufficient to power nearly 90% of the households in West Berkshire, based on 2001 Census data.
- 2.10 The EfW will be located in the north eastern part of the existing Old Kiln Quarry. As a result of the previous quarrying activity, there is an existing depression of some 8m – 10m below surrounding ground levels and this will be utilised in order to reduce the visual impact of the proposed plant. Further, Crowther Associates, the architects designing the EfW facility, and Alliance Planning, the planning consultants preparing the quarry extension and regularisation application, have been liaising closely to ensure that the location and orientation of the EfW and the restoration contours complement each other as much as possible, but still ensuring that each scheme stands on its own merits.

- 2.11 It is proposed that the architectural form of the facility will comprise a linked cluster of three distinct oval buildings incorporating the main EfW plant, the plasma furnace building and the air cooled condenser section respectively. The exact design, location and size of the facility is still progressing through the design evolution stages as the base studies undertaken throughout the EIA process will help to inform the final design. However, in order to assist the scoping process as much as possible, the current working height of the building is 47m, with the flue extending up to about 85m.
- 2.12 Parking will be located directly to the south east of the facility and the current route of the access track follows the line of the restoration contours, but has been specifically located lower down the slope to reduce the visual impact of traffic as much as possible and create a buffer between the access track and the woodland to the east. The access track links in with the existing access road that serves the quarry. Therefore, a large proportion of the existing quarry will not be developed and will be subject to restoration, to the same agricultural grade, or better, than the agricultural grade of the land before extraction commenced. As an alternative, this land could be used for landscaping or ecological purposes given that the original condition of the land was of low grade agricultural value.
- 2.13 The facility itself will principally include the following:
- i. Tipping/processing hall; for the arrival of waste.
 - ii. Waste Bunker; for the storage of waste prior to energy recovery.
 - iii. Steam Generation Hall;
 - iv. Turbine Hall; for electricity generation.
 - v. Flue Gas Treatment Hall and residue storage;
 - vi. Two Emission Flues; one for each of the twin streams.
 - vii. Combined Heat and Power infrastructure;
 - viii. Bottom Ash processing and storage;
 - ix. Electricity Sub-station;
 - x. Water Tanks;
 - xi. Plasma Furnaces; to convert fly ash residues to recyclable materials.
 - xii. Air Cooled Condensers;
 - xiii. Bunded Diesel Tanks; and
 - xiv. Administration
- 2.14 A separate gatehouse building would be located at the site entrance, together with weighbridges for input and output materials. Car parking, landscaping and an attenuation pond is also proposed.

3.0 DESCRIPTION OF THE SITE AND ITS SURROUNDINGS

- 3.1 Old Kiln Quarry lies approximately 500m to the east of the Chieveley Motorway Services Area (MSA) and approximately 600m east of junction 13 of the M4 (the M4/ A34 interchange). The site, which lies within the North Wessex Downs Area of Outstanding Natural Beauty (AONB), is an existing sand and gravel quarry, approved under Application No. 138995 and later varied by Application No. 153458. Planning permission to extend both the life of the existing quarry and the extent of the quarry will shortly be submitted by Alliance Planning on behalf of Grundon Sand and Gravel Ltd.
- 3.2 The site that forms this proposal is owned by J S Fairhurst Esq & ANOR and leased by Grundon Sand and Gravel Ltd, formerly known as S. Grundon (Ewelme) Ltd. It comprises approximately 21.2ha and benefits from excellent access to the nearby strategic road network of the A34 and M4 through the Chieveley Motorway Services Area (MSA). The site has been used for sand and gravel extraction since April 1997 and the eastern part of the site has recently been restored. A fenced site compound is located in the south west corner of the quarry, comprising a weighbridge parking and storage area.
- 3.3 Immediately to the north of the site lies plantation woodland with the M4 motorway running east-west beyond. On the north side of the M4 lies the Newbury Showground, an outdoor venue owned by The Newbury and District Agricultural Society, a registered charity which aims to promote agriculture, horticulture, forestry, rural crafts and skills through various events throughout the year, the largest of which is the annual Royal County of Berkshire Show.
- 3.4 To the west of the quarry lies more plantation woodland and beyond is an open field. Chieveley MSA, which also comprises a Travelodge and other small units, is located beyond this field. A Council depot lies immediately to the north east of the Travelodge and MSA car park. The Hilton Hotel lies further to the west, separated by the recently reconfigured A34 slip road.
- 3.5 This whole area is designated in the West Berkshire District Local Plan 1991 – 2006 for development that is, amongst others, essential for the provision of services to meet the needs of highway users, provided a number of criteria are met. To the south of the quarry lies further extensive woodland.
- 3.6 A Byway Open to All Traffic (BOAT) runs along the eastern boundary of the quarry.

- 3.7 To the east of this right of way there is further woodland and a partially restored quarry with a construction and demolition (C&D) recycling facility towards the eastern end of the site. An existing quarry, known as Copyhold Farm Quarry and operated by Raymond Brown, is located to the north, alongside the M4.
- 3.8 There are currently two planning applications under consideration by West Berkshire Council to extend the quarry further (10/01234/MINMAJ) and to retain the C&D facility on a temporary basis (10/02065/MINMAJ).
- 3.9 On the definitive map, Byway Open to All Traffic (No 49/2) crosses the Old Kiln Quarry site; this has been formally diverted around the western and northern side of the quarry to maintain the BOAT connections in the vicinity of the site. Given the attractive woodland setting that has been created along the diverted route, a permanent diversion of the BOAT will be sought via the mineral application for the extension of the quarry referred to in paragraph 3.1.

4.0 NEED FOR AN ENVIRONMENTAL STATEMENT

Environmental Impact Assessment Regulations

- 4.1 Directive 85/337/EEC, as amended by Directive 97/11/EC, provides requirements for the Environmental Impact Assessment (EIA) of major projects. These came into effect, respectively, in July 1988 and on 14 March 1997. The amended Directive was given legal status in the UK as of 14 March 1999 through Statutory Instrument 1999 No.293 The Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 (The EIA Regulations).
- 4.2 These Environmental Impact Assessment (EIA) Regulations split development types into those requiring EIA in every case (Schedule 1 Projects), and those requiring EIA only if the particular project in question is judged likely to give rise to significant environmental effects (Schedule 2 projects).
- 4.3 It is considered that the Energy from Waste facility is Schedule 1 (10) development as identified in the EIA Regulations as it is a waste disposal installation for the incineration of non-hazardous waste with a capacity exceeding 100 tonnes per day.
- 4.4 In addition to this, further advice is contained in Circular 2/99: Environmental Impact Assessment which gives guidance in relation to the Regulations. At Annex A paragraph A36, the Circular states with regard to installations for the disposal of non-hazardous waste:

“For installations (including landfill sites) for the deposit, recovery and/or disposal of household, industrial and/or commercial wastes (as defined by the Controlled Waste Regulations 1992) EIA is more likely to be required where new capacity is created to hold more than 50,000 tonnes per year.....”

- 4.5 The Energy from Waste facility would:
- provide new capacity in excess of 50,000 tonnes per year; and
 - handle a mixture of wastes including commercial/industrial waste, municipal solid waste and construction/demolition waste

- 4.6 In light of the above Grundon Waste Management Ltd considers that an ES is required.
- 4.7 Schedule 3 of the Regulations asks local authorities to have regard to the following environmental factors:-
- The **characteristics of development** having regard to size, use of natural resources, production of waste, pollution and nuisances, accident risk;
 - **Location of development** having regard to the environmental sensitivity of areas affected, the relative abundance, quality and regenerative capacity of local natural resources, the absorption capacity of the natural environment;
 - **Characteristics of the potential impact** having regard to the extent of impact; multitude and complexity, probability of impact, and the duration, frequency and reversibility of the impact.
- 4.8 Guidance regarding the content of an Environmental Statement is set out in Schedule 4 of the EIA Regulations and requires:
1. *Description of the development, including in particular:-*
 - (a) *a description of the physical characteristics of the whole development and the land-use requirements during the construction and operational phases;*
 - (b) *a description of the main characteristics of the production processes, for instance, nature and quantity of the materials used;*
 - (c) *an estimate, by type and quantity, of expected residues and emissions (water, air and soil pollution, noise, vibration, light, heat, radiation, etc.) resulting from the operation of the proposed development.*
 2. *An outline of the main alternatives studied by the applicant or appellant and an indication of the main reasons for his choice, taking into account the environmental effects.*
 3. *A description of the aspects of the environment likely to be significantly affected by the development, including, in particular, population, fauna, flora, soil, water, air, climatic factors, material assets, including the architectural and archaeological heritage, landscape and the inter-relationship between the above factors.*
 4. *A description of the likely significant effects of the development on the environment, which should cover the direct effects and any indirect, secondary, cumulative, short, medium and long-term, permanent and temporary, positive and negative effects of the development, resulting from:-*
 - (a) *the existence of the development;*
 - (b) *the use of natural resources;*

- (c) *the emission of pollutants, the creation of nuisances and the elimination of waste, and the description by the applicant of the forecasting methods used to assess the effects on the environment.*
5. *A description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment.*
 6. *A non-technical summary of the information provided under paragraphs 1 to 5 of this Part.*
 7. *An indication of any difficulties (technical deficiencies or lack of know-how) encountered by the applicant in compiling the required information.*

Part II

1. *A description of the development comprising information on the site, design and size of the development.*
 2. *A description of the measures envisaged in order to avoid, reduce and, if possible, remedy significant adverse effects.*
 3. *The data required to identify and assess the main effects which the development is likely to have on the environment.*
 4. *An outline of the main alternatives studied by the applicant or appellant and an indication of the main reasons for his choice, taking into account the environmental effects.*
 5. *A non-technical summary of the information provided under paragraphs 1 to 4 of this Part.*
- 4.9 Circular 2/99 states that it is the applicant's responsibility to prepare the Environmental Statement. There is no statutory provision as to the form of the ES. However, for the document to constitute an Environmental Statement in accordance with the definition set out in Regulation 2(1), it must contain the information specified in Part II, and such relevant information in Part I of Schedule 4 of the Regulations as is reasonably required to assess the effects of the project and which the developer can be reasonably required to compile.
- 4.10 Barton Willmore has set out this request for a Scoping Opinion on behalf of Grundon Waste Management Ltd in line with the preceding guidance. The format of the proposed Environmental Statement is set out in Chapter 6.

5.0 PLANNING POLICY CONTEXT

- 5.1 The principal waste planning and other policies of relevance to the Energy from Waste (EfW) facility proposals at Old Kiln Quarry can be broadly summarised as follows:

European Waste Policy

- 5.2 The European Commission proposed in December 2005 a new strategy on the prevention and recycling of waste. This strategy is one of seven thematic strategies programmed by the 6th Environmental Action Plan. The strategy's key objective is to make Europe a recycling society that seeks to prevent the generation of waste and, where waste cannot be prevented, to use it as a resource. As a first step the Commission revised the Waste Framework Directive 75/442/EEC (to be repealed with effect from December 2010).
- 5.3 In December 2008, a revised European Union Waste Framework Directive (2008/98/EC) came into force. Whilst it has not yet fully passed into law, it is effectively treated as UK law, as the European Court of Justice has ruled that Member States can not act contrary to new European Directives, whilst they await transposition into national law. The new Waste Framework Directive 2008 (WFD 2008) updates the existing European legal framework on all aspects of waste and also consolidates the previously separate regimes of hazardous and non-hazardous waste into one framework directive.
- 5.4 The WFD 2008 replaces the previous Directive 2006/12/EC in order to establish and clarify the definitions of waste, recovery and disposal to further the objective of securing waste prevention. The Directive identifies that the first objective of any waste policy should be to minimise the negative effects of the generation of waste on human health and the environment. Waste policy should also aim at reducing the use of resources and favour the practical application of the waste hierarchy.
- 5.5 The approach therefore focuses on the whole life-cycle of materials, not only the waste phase, to strengthen the economic value of waste and reduce the environmental effects of waste management. Accordingly, the recovery of waste is encouraged to conserve natural resources.
- 5.6 Article 3.1 provides a new common definition of waste for Member States, that being:

'Waste means any substance or object which the holder discards or intends or is required to discard'.

5.7 Article 3.9 provides a new common definition of waste management, that being:

‘Waste management means the collection, transport, recovery or disposal of waste, including the supervision of such operations and the after-care of disposal sites and including actions taken as a dealer or broker’.

5.8 Article 3.15 provides a new common definition of recovery, that being:

‘Recovery means any operation 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’.

5.9 Article 3.19 provides that ‘disposal’ is any operation which is not recovery even if, as a secondary consequence of the operation, there is the reclamation of substances or energy. Annex I of the directive sets out a list of ‘disposal’ operations and criterion D10 identifies that ‘incineration on land’ is classified as a disposal operation. Annex II of the directive however sets out a non-exhaustive list of recovery operations, which includes, inter alia, the use of waste principally as a fuel, or other means to generate energy, which includes incineration (criterion R1). For clarity, the footnotes to Annex II R1 confirm that recovery includes incineration facilities dedicated to the processing of municipal solid waste, but only where their energy efficiency factor is equal to, or above, 0.60 for installations in operation and permitted in accordance with applicable Community legislation before 1 January 2009 or 0.65 for installations permitted after 31 December 2008.

National Waste Planning Policy

5.10 To meet the obligations of the UK under the EU Directive, an overarching waste strategy was devised, originally published as the ‘Waste Strategy 2000’, to cover England and Wales. The strategy established the principle of a conceptual waste hierarchy, setting out options for the management of waste in order of priority.

5.11 This original strategy has now recently been updated through the publication of the ‘Waste Strategy for England 2007’. This new Strategy builds on Waste Strategy 2000 and the progress made since then, but aims for greater ambition by addressing the key challenges for the future through additional steps.

5.12 The premise of the new Strategy is that the most effective environmental option, i.e. at the top of the waste hierarchy, still remains to reduce the quantum of waste generated (waste prevention). In common with the original strategy this is followed, in order of priority, by re-use, recycling, composting and energy recovery from waste. Accordingly, waste disposal by means of landfill, remains the least environmentally acceptable solution and so has the lowest priority in the waste hierarchy.

5.13 The vision of the Strategy is for producers to make products using more recycled materials and for retailers to reduce packaging as well as sourcing market products that are less wasteful. Consumers will, therefore, have more opportunity to reduce their own waste and local authorities will be required to commission additional recycling and repossessing facilities for their communities.

5.14 The key objectives as set out in the new Waste Strategy are, therefore, to:

- decouple waste growth (in all sectors) from economic growth and put more emphasis on waste prevention and re-use;
- meet and exceed the Landfill Directive diversion targets for biodegradable municipal waste in 2010, 2013 and 2020;
- increase diversion from landfill of non municipal waste and secure better integration of treatment for municipal and non municipal waste;
- secure the investment of infrastructure needed to divert waste from landfill and for the management of hazardous waste; and
- obtain the most environmental benefit from that investment through increased recycling of resources and recovery of energy from residual waste using a mix of technologies.

5.15 The Strategy accordingly sets higher national targets than in 2000 for recycling and composting of household waste – at least 40% by 2010, 45% by 2015 and 50% by 2020; and recovery of municipal waste – 53% by 2010, 67% by 2015 and 75% by 2020. Thus, the key government targets relating to MSW are now as follows:

- To recycle or compost at least 40% of household waste by 2010;
- To recycle or compost at least 45% of household waste by 2015;
- To recycle or compost at least 50% of household waste by 2020;
- To recover at least 53% of municipal waste by 2010;
- To recover at least 67% of municipal waste by 2015;
- To recover at least 75% of municipal waste by 2020.

5.16 The main components of the new Strategy are to:

- incentivise efforts to reduce, re-use and recycle waste and recover energy from waste;
- reform regulations to drive the reduction of waste and diversion from landfill whilst reducing costs to compliant businesses and the regulator;
- stimulate investment in collection, recycling and recovery infrastructure and markets for recovered materials that will maximise the value of materials and energy recovered; and
- improve national, regional and local governance, with a clearer performance and institutional framework to deliver better co-ordinated action and services on the ground.

5.17 The aim is to create incentives that reflect the waste hierarchy and create opportunities for the reduction, re-use, recycling and recovery of energy from waste. Recovering energy from waste which cannot sensibly be re-used or recycled is seen as an 'essential component of a well balanced energy policy' given that most of the UK's European competitors already pursue this option vigorously (Chapter 5 paragraph 17).

5.18 The Strategy also makes clear that recent sharp increases in energy prices, coupled with instability in many supplier countries, 'underlines the importance of maximising energy recovery from the portion of waste which cannot be recycled.....using the most efficient technology for the job' (paragraph 18).

5.19 The Strategy makes the point, however, that the recovery of energy from waste has been held back by 'public fears over alleged health effects, and fears that the development of suitable infrastructure would lock in wastes which could otherwise be minimised or recycled' (Chapter 5 paragraph 21). The Strategy also states however, that 'research carried out to date shows no credible evidence of adverse health outcomes for those living near incinerators' (Chapter 5 paragraph 22).

General Planning Policy Statements

5.20 With regard to strategic planning advice, national guidance is provided via Planning Policy Guidance Notes (PPGs) and, more recently, Planning Policy Statements (PPSs), the latter of which are steadily replacing the former in all key policy areas.

- 5.21 ***PPS1: Delivering Sustainable Development*** (February 2005) sets out the overarching approach to the delivery of sustainable development through the planning system. This new integrated approach goes beyond traditional land use planning and introduces a spatial dimension, which combines policies for the control of development with other policies and programmes which influence the form and function of built environments.
- 5.22 The key objectives of PPS1 are a positive planning framework for sustainable economic growth and the promotion of more efficient land use which reduces the need to travel. Other objectives include addressing the causes and impacts of climate change, the management of pollution, and the protection of biodiversity and natural habitats.
- 5.23 ***PPS7: Sustainable Development in Rural Areas*** (August 2004) and ***PPS 10: Planning for Sustainable Waste Management*** (July 2005) are particularly relevant to the Old Kiln Quarry proposals as the site lies within the North Wessex Downs Area of Outstanding Natural Beauty (NWDONB).
- 5.24 PPS10, in conjunction with 'Planning for Sustainable Waste Management: Companion Guide to Planning Policy Statement 10' (June 2006), sets out the Government's overall policy on waste. This is primarily to protect human health and the environment by producing less waste and by using waste as a viable resource wherever possible.
- 5.25 PPS10 also confirms a 'waste hierarchy' whereby the primary goal of waste management is reduction, followed by reuse and recycling, composting, as well as the use of waste as a source of energy. Accordingly, disposal through landfill is considered to be the option of last resort. Essentially, the Government aims to break the link between economic growth and the environmental impact of waste.
- 5.26 This requires a step change in the way waste is handled and significant new investment in waste management facilities. Positive planning is seen as having an important role in delivering sustainable waste management through appropriate strategies for growth, regeneration, prudent use of resources and:
- "providing sufficient opportunities for new waste management facilities of the right type, in the right place and at the right time."** (paragraph 2)
- 5.27 Paragraph 3 of PPS10 sets out the key planning objectives and requires regional and local planning authorities to prepare and deliver planning strategies that:

- help deliver sustainable development through driving waste management up the waste hierarchy, addressing waste as a resource and looking to disposal as the last option, but one which must be adequately catered for;
- provide a framework in which communities take more responsibility for their own waste, and enable sufficient and timely provision of waste management facilities to meet the needs of their communities;
- help implement the national waste strategy, and supporting targets, are consistent with obligations required under European legislation and support and complement other guidance and legal controls such as those set out in the Waste Management Licensing Regulations 1994;
- help secure the recovery or disposal of waste without endangering human health and without harming the environment, and enable waste to be disposed of in one of the nearest appropriate installations;
- reflect the concerns and interests of communities, the needs of waste collection authorities, waste disposal authorities and business, and encourage competitiveness;
- protect green belts but recognise the particular needs of some types of waste management facilities when defining detailed green belt boundaries and, in determining planning applications, that these locational needs, together with the wider environmental and economic benefits of sustainable waste management, are material considerations that should be given significant weight in determining whether proposals should be given planning permission;
- ensure the design and layout of new development supports sustainable waste management.

5.28 Other national policy statements and guidance which will be material to any planning application for an EfW at Old Kiln Quarry include:

| | |
|---------------|---|
| PPS 7 | Delivering Sustainable Development in Rural Areas (2004) |
| PPS 9 | Biodiversity and Geological Conservation (2005) |
| PPG 13 | Transport (2001) |
| PPG 14 | Development on Unstable Land (1990) |
| PPS 23 | Planning and Pollution Control (2004) |
| PPG 24 | Planning and Noise (1994) |
| PPS 25 | Development and Flood Risk (2006) |

Regional Waste Planning Policy

- 5.29 On 6th July 2010 the Department of Communities and Local Government announced its intention to formally abolish all Regional Spatial Strategies with immediate effect. As such, there is currently no extant Regional Waste Planning Policy as the South East Plan has been abandoned. However, whilst the Coalition Government has removed all regional targets, it has not removed the need, in principle, for a robust and credible evidence base to inform future planning policy or development control decisions. Such evidence is still a material consideration and so therefore it does not follow that the need for addressing waste arisings in a sustainable manner has dissipated because the South East Plan, along with its associated targets, has been abolished.

Waste Local Plan for Berkshire

- 5.30 The Waste Local Plan for Berkshire (WLPB), which was adopted in 1998, sets out the strategy and policy framework for dealing with waste within the six authorities that comprised the former county of Berkshire. Although now somewhat dated, it still comprises part of the Development Plan for West Berkshire.
- 5.31 In September 2007 the Secretary of State issued a Direction under paragraph 1(3) of Schedule 8 to the Planning and Compulsory Purchase Act 2004 indefinitely saving a number of the policies within the WLPB, and these saved policies will therefore remain applicable until superseded.
- 5.32 The WLPB identified a number of 'Preferred Areas' for waste management uses in Berkshire. These 'Preferred Areas' comprised 27 different sites, ten of which were located in West Berkshire. Only two of the 27 sites, one in West Berkshire and one in Reading, were deemed to be suitable for the facility now proposed at Old Kiln Quarry. In this respect, it is Grundon's intention to submit a robust assessment of alternative sites as part of the planning application for an EfW Old Kiln Quarry. The assessment will address the issue of the Preferred Areas in context.

A Municipal Waste Management Strategy for West Berkshire (2002 – 2022)

- 5.33 A Municipal Waste Management Strategy for West Berkshire (MWMS), setting out the long term strategy for West Berkshire up to 2022, was formally approved by the Government Office for the South East in 2002. The MWMS sets out the Council's objectives and standards for the management of municipal waste, and includes policies and plans on how these objectives and standards will be achieved.

5.34 The MWMS identified 20 Strategic Waste Management Policies (SWMPs). These ranged from raising awareness, increasing dialogue with key stakeholders, minimising waste, encouraging the development of sustainable waste management and seeking to recover more value from waste through maintaining a watching brief on available technologies.

5.35 Five options were identified for dealing with West Berkshire's waste and these comprised:

- Option 1 (Continuation of existing situation) – This involved landfilling as the sole disposal method, supplemented by the existing kerbside, civic amenity and bank recycling schemes;
- Option 2 (Maximised recycling and composting) – This option was based on maximising recycling and composting through the expansion of the kerbside collection. The residual waste would be disposed of at a landfill, and a transfer station would be required;
- Option 3 (Maximum energy from waste and sustained recycling) – This option was aimed at maximising the recovery of energy through an energy from waste facility as the sole treatment method, supplemented by kerbside, civic amenity and bank recycling schemes;
- Option 4 (Highest level of sustainability) – This option was aimed at delivering the highest level of sustainability through adopting the waste management hierarchy and maximising the diversion of waste from landfill. Recycling and composting would be maximised with the remainder being treated by an energy from waste facility; and
- Option 5 (Rural/ Urban) – This option included an intensification of the kerbside collection of recyclables in urban areas with the collection of dry recyclables being replaced by the collection of compostable materials in rural areas; the residual waste would be treated by an energy from waste facility.

5.36 The MWMS analysed these options and their potential effects and this analysis led to a number of conclusions. Option 1 was not considered to be a viable waste management option for West Berkshire because of a number of factors, including the lack of current and future landfill capacity in the area, the requirements of the Landfill Directive and the obligations to meet statutory recycling and recovery targets.

5.37 Option 2 was considered to be a viable option in the short to medium term (2002 – 2006), but it would necessitate the establishment of further technologies/ facilities in the longer term.

- 5.38 Option 3 would not meet statutory recycling targets post 2004 but would meet national recovery targets and Landfill Directive targets. It was not considered to be a viable option in the short term but elements of Option 3 combined with greater emphasis on recycling and composting could provide a means for meeting medium and long term targets.
- 5.39 Option 4 would meet the 2005, 2010 and 2015 targets for recycling and recovery and would achieve the Landfill Directive targets. It was considered to be the most viable technical option in the medium to long term, although further analysis of affordability would be required.
- 5.40 Option 5 was similar to Option 4 in technological terms. Option 5 would meet the Landfill Directive and national recovery targets but would only achieve a recycling rate of 33%.

Municipal Waste Management Statement

- 5.41 A Municipal Waste Management Statement was published in 2004. This identified that, after evaluating the options in the Strategy, West Berkshire Council's preferred option was to maximise composting and recycling coupled with the primary objective of waste minimisation, with the Council looking to the private sector to produce their own innovative solutions to achieving the objectives of the authority.
- 5.42 The Statement also set out the Council's Vision, and how to deliver that Vision, and this was based on the 20 Strategic Waste Management Policies contained in the Municipal Waste Management Strategy. The Council's Vision is for, amongst others:
- More sustainable waste management in West Berkshire;
 - The reduction and re-use of waste;
 - Reduction of waste to landfill;
 - Management of waste in adherence to the proximity principle;
 - Continuous and demonstrable improvement in the quality, sustainability and efficiency of the waste management services; and
 - Increased recovery of value from waste.
- 5.43 In order to deliver the Vision, the Council envisages that this may include:
- Awareness raising;
 - Maximising recycling and recovery of waste;

- Increasing composting services; and
- Management of waste close to source.

Joint Minerals and Waste Local Development Framework

- 5.44 Owing to the abolition of Berkshire County Council, the responsibility for preparing and reviewing waste policies in Berkshire is now exercised, through the Joint Strategic Planning Unit (JSPU), by the six unitary Authorities jointly (Bracknell Forest, Reading, Slough, West Berkshire, Windsor & Maidenhead and Wokingham).
- 5.45 The six Authorities are currently producing a Joint Minerals and Waste Local Development Framework (JMWLDF). Initial consultation on the Issues and Options was completed in 2005, with preparation and consultation of the Issues and Options Report taking place from 2005 through to 2006. The Preferred Options was published for consultation in September 2007.
- 5.46 The Core Strategy was published in September 2008 and submitted to the Secretary of State in February 2009, with the Hearings commencing in June 2009. After the first week the Hearings were adjourned and a decision was made to withdraw the Core Strategy. The Secretary of State formally requested the withdrawal of the Core Strategy in January 2010 and the JSPU is currently preparing a revised Core Strategy, although timescales are currently unknown as a result of the recent change in Government.
- 5.47 The Core Strategy Preferred Options identified six preferred objectives in respect of waste, addressing matters such as:
- Balancing the needs of waste treatment with the needs of residents, the economy and the environment;
 - Creating a spatial planning context to address waste;
 - Facilitating regional self-sufficiency;
 - Encouraging waste treatment higher up the waste hierarchy, including an increase in re-use, recycling and recovery of materials and energy recovery;
 - Locating waste management facilities in order to reduce distances by road that waste is transported; and
 - Safeguarding appropriately located existing waste management facilities.

The West Berkshire District Local Plan 1991 – 2006 (Saved Policies 2007)

5.48 The West Berkshire District Local Plan (WBDLP) covered the period 1991 – 2006. In September 2007 the Secretary of State issued a Direction under paragraph 1(3) of Schedule 8 to the Planning and Compulsory Purchase Act 2004 indefinitely saving a number of the policies within the WBDLP, and these saved policies will therefore remain applicable until superseded.

5.49 In the interim period, the following Local Plan policies have been saved and are material to the determination of an application for an Energy from Waste facility in this location. Generic, all encompassing, policies such as OVS.1 (The Overall Strategy), OVS.2 (Core Policy) or OVS.3 (Planning and Community Benefits) have not been included here for brevity, but the proposal will be fully assessed against all applicable policies.

- Policy OVS.5 Environmental Nuisance and Pollution Control;
- Policy OVS.6 Noise Pollution;
- Policy ENV.1 The Wider Countryside;
- Policy ENV.9 The Impact of Development Proposals on Nature Conservation Sites;
- Policy ENV.18 Control of Development in the Countryside; and
- Policy TRANS.1 Meeting the Transport needs of New Development.

6.0 FORMAT OF THE ENVIRONMENTAL STATEMENT

6.1 Paragraph 82 of Circular 2/99 states that the role of EIA is to examine the main or significant effects to which a development is likely to give rise. EIA will address all of the pertinent environmental matters relating to the site and surrounding area, including the proposed quarry extension and regularisation application currently being prepared by Grundon Waste Management. Grundon has scoped their Proposed Development in line with the guidance contained in the Regulations and Circular.

6.2 It is proposed that the ES will contain five main parts dealing with the following:

- Part 1: Introduction – Introduction and EIA Methodology;
- Part 2: Project Description – Site and Surroundings, Project Description and Construction Programme;
- Part 3: Project Justification – Assessment of Need (to be supplemented by an Alternative Sites Assessment which will form a separate Appendix);
- Part 4: Assessment of Effects – ES Technical Chapters; and
- Part 5: Conclusions – Statement of Significance and Conclusions

6.3 The scope of the ES set out below follows the sequence of the proposed structure and is sub-headed accordingly.

Part 1 – Introduction

Introduction and EIA Methodology

6.4 These Sections will set out the background to the Proposed Development including its planning history and objectives. These sections will summarise the requirements of the environmental assessment legislation and identify the contributors, the scope of work and any difficulties in obtaining baseline information, predicting effects or measuring levels of significance. The sections will also summarise the results of consultations with the local planning authority, the statutory consultees and other consultees.

Part 2 – Project Description

Site and Surroundings, Project Description and Construction Programme

6.5 This section will describe the site and surroundings, setting out the key site boundaries. It will describe the main features of the site including landform, relief, watercourses and

other natural features. Consideration will be given to adjoining land uses, including the proposed quarry extension and regularisation application.

- 6.6 This section will also set out a description of the Proposed Development, including the intended land uses, details of access and transport arrangements, and the physical characteristics of the project. A layout plan showing the overall distribution of land uses, means of access and landscaping will be provided. A written statement setting out the details of the development proposal will accompany this.
- 6.7 The anticipated Construction Programme will also be addressed in this section, including demolition.

Part 3 – Project Justification

Assessment of Need

- 6.8 The aim of this section is to provide an assessment of the need for the Proposed Development, having particular regard to the need for a sustainable waste treatment solution for the district and its wider environs.
- 6.9 This analysis will be supplemented by an Alternative Sites Assessment submitted as an appendix to the Environmental Statement.

Part 4 – Assessment of Effects

- 6.10 Having regard to the requirements of the Regulations, an assessment has been made regarding which topics, or particular aspects of them, should be 'scoped in' and 'scoped out' of the Environmental Statement. Disciplines which are scoped into the ES are judged to be likely, without any effective mitigation, to have the potential to cause significant environmental effects. Matters that are scoped out of the ES are those which are not anticipated to result in any significant environmental effects.
- 6.11 The decision to scope out matters is based upon factors such as a high degree of separation between the development and a receptor, the lack of effective pathways or the known low value or sensitivity of affected resources. It is accepted, however, that as the assessment proceeds, any omitted topics will need to be reviewed and their significance re-evaluated in response to additional information or changes to the Proposed Development.

- 6.12 Each effect to be considered in Part Four of the ES will be reviewed under the following headings:

Introduction

- 6.13 The introduction will provide a brief summary of what is considered in the chapter.

Assessment Methodology

- 6.14 The methods used in undertaking the technical studies will be outlined in this section, with references to published standards, guidelines, best practice and relevant significance criteria. Legislation will also be identified where applicable. Whilst the Planning and Sustainability Statement will review planning policy in detail, relevant planning policies (at a local, regional and national level) related to the technical issues will sometimes be referred to where this would help the reader.

Baseline Conditions

- 6.15 An important component of the ES is the baseline situation; this is the prevailing environmental conditions against which the likely significant environmental effects of the Proposed Development are assessed. This is usually taken to be the conditions at the time or immediately prior to the submission of any planning application. These conditions are not usually predicted to alter significantly, if at all, during the interim period before development works are programmed to commence.

Likely Significant Effects

- 6.16 This will identify the likely significant environmental effects resulting from the Proposed Development and will consider effects during demolition, construction and operation.

Mitigation Measures

- 6.17 One of the main aims of the ES is to develop mitigation measures to avoid, offset or reduce the significant adverse effects of a project to an acceptable level. These measures can relate to any of the three key phases of the project: design, construction or operation once the Proposed Development is completed.

Residual Effects and Conclusions

6.18 This section will identify the effects of the Proposed Development that remain after implementation of available mitigation measures, and will include an assessment of the significance of those effects.

Evaluation of Significance

6.19 The EIA Regulations stipulate that an ES should, where possible, identify, describe and assess the likely significant effects of a development on the environment, including a consideration of:

- Beneficial and adverse effects;
- Short, medium and long term effects;
- Direct and indirect effects;
- Permanent and temporary effects; and
- Cumulative effects and effect interactions, including the proposed quarry extension and regularisation application.

6.20 The significance of likely effects will be determined by reference to criteria for each assessment topic. These criteria will apply a common EIA approach of classifying effects according to whether they are major, moderate or minor effects considered to be adverse, negligible or beneficial and this section will include this evaluation.

6.21 The technical disciplines that will be assessed in the Environmental Statement are highlighted in the following chapter.

Part 5 – Conclusions

6.22 This section will draw together the findings of the preceding sections and identify the key effects of the Proposed Development. A table showing the significance, in terms of geographical importance, potential significance and the nature of the effect will be included.

6.23 In accordance with the EIA Regulations, a Non-Technical Summary of the ES will also be provided.

7.0 ENVIRONMENTAL STATEMENT TECHNICAL DISCIPLINES

- 7.1 It is anticipated that the ES Technical Chapters will comprise the disciplines as set out within this Chapter.
- 7.2 In terms of Planning Policy, the most prevalent policies have been set out under each technical discipline. It must be noted that these lists are not exhaustive, and overarching policies or policies that are applicable to all or many disciplines, such as PPS1, PPS7 and PPS10 or West Berkshire District Local Plan Policy OVS.2 for example, have not been expressly identified under each technical discipline for brevity. Further, there are some policies which do not fall to be considered under the technical disciplines within the ES and these will be addressed in the Planning Statement. The ES will be fully cognisant of any potential effects arising from the adjacent quarry extension and regularisation application which is currently being prepared by Alliance Planning on behalf of Grundon Sand and Gravel Ltd.
- 7.3 Emerging policy will be addressed where applicable during the course of the ES and will be shown appropriate weight according to its status.
- 7.4 Finally, given the abolition of Regional Spatial Strategies (RSSs) by the Department of Communities and Local Government on the 6th July 2010 there is now no regional policy framework, other than the saved policies contained within the Waste Local Plan for Berkshire.

Transport, Traffic and Movement

- 7.5 In terms of Planning Policy, it is envisaged that the following policies will be the most applicable in assessing transport, traffic and movement matters for the proposed Energy from Waste facility:

National Planning Policy

- Planning Policy Guidance 13 (PPG13) – Transport

West Berkshire District Local Plan 1991 – 2006 (Saved Policies 2007)

- Policy TRANS.1 – Meeting the Transport Needs of New Development

West Berkshire Local Transport Plan 2 2006/07 – 2010/11

- 7.6 This element of the ES will address transport provision in the area and will assess the potential effects of the construction and operational phases of the Proposed Development, based on the existing conditions and including any proposed mitigation measures.
- 7.7 The principal matters to be considered by this Chapter are anticipated to be as follows:
- Access arrangements;
 - Existing site traffic generation;
 - Proposed Development traffic generation;
 - Type of traffic;
 - Local and wider highway network;
 - Existing and future junction capacity analysis;
 - Accident analysis on surrounding road network;
 - Source of waste;
 - Alternative sites considered;
 - Number of staff and shift patterns;
 - Construction phase; and
 - Accessibility by sustainable modes of transport.
- 7.8 The ES will identify the number of trips which will be generated by the Proposed Development and the types of vehicles which will be operating from the site. The effect of the development upon the access with the adjacent Motorway Services Area and the local highway network in particular will be analysed.
- 7.9 It is anticipated that there will be a low level of traffic generated by this site compared with the existing traffic flows along the M4 and A34. As such, any increase in traffic over and above that generated by the existing use is likely to be low, particularly during peak periods. However, given the proximity of the site to the M4 / A34 junction the Highways Agency has been consulted to determine whether junction modelling at this location is required. If required, the modelling will be undertaken to a level which will clearly demonstrate the effects of the Proposed Development on traffic in the vicinity, both construction and operational, as well as the operation of the nearby key junctions.

7.10 Data will be obtained from the existing Automatic Traffic Counts (ATCs) that are in place to monitor quarry traffic, and these ATCs will be supplemented as necessary, in consultation with West Berkshire Officers and the Highways Agency.

7.11 In addition to considering the changes in traffic, the following will be considered:

- Severance;
- Driver delay;
- Pedestrian and cyclist delay;
- Pedestrian and cyclist amenity;
- Accidents and safety;
- Hazardous loads; and
- Dust and dirt.

7.12 The geographical extent of the highway network assessed within the ES will be determined based upon the Institute of Environmental Management and Assessment guidelines for the Environmental Assessment of Road Traffic (Guidance Note No.1) which sets out that *'highway links should be assessed when traffic flows have increased by more than 30% or other sensitive areas are affected by traffic increases of at least 10%.'*

7.13 The construction and operational phases of the facility will be considered, taking into account matters such as the anticipated length of the construction period, number of construction workers, construction vehicles, likely shift patterns and staff numbers.

7.14 The above will be contained within a Transport Assessment (TA), attached as a Technical Appendix to the ES. A Travel Plan will also be produced to accompany the planning application.

7.15 The key elements of the TA will include:

- Review of national and local policy context;
- Existing network flows;
- Review of personal injury accident data in the vicinity of the site;
- Prediction of the future year baseline traffic flows based on forecast opening year;

- Calculation of the forecast trip generation, distribution and assignment of the development traffic with regard to each element of the waste process and staff movements;
- Review of site access proposals;
- Determination of vehicular traffic impact of the Proposed Development on the local highway network; and
- Review of the strategy and program for the construction phase based on the forecast opening year, including consideration of the potential effects of traffic movements associated with the construction phase on the highway network and the routing of vehicles to the site.

Noise and Vibration

7.16 In terms of Planning Policy, it is envisaged that the below policies will be the most applicable in addressing noise and vibration matters:

National Planning Policy

- Planning Policy Guidance 24 (PPG24) – Planning and Noise

West Berkshire District Local Plan 1991 – 2006 (Saved Policies 2007)

- Policy OVS.6 – Noise Pollution

7.17 It is anticipated that background noise levels from the M4 and A34 will be quite high, especially during the day, but will be reduced at night and this element will be shown particular regard. The design of the facility will be predicated by the location of sensitive receptors so as to minimise any effects of noise emanating from the facility.

7.18 The principal noise emissions associated with the Proposed Development are predicted to be as follows:

- Noise emissions during the construction period and any road improvements that may be required;
- Noise emissions from the combustion process through the main flue;
- Noise emissions from internal and external plant; and
- Vehicle movements to, from and within the site, including construction traffic.

- 7.19 The operational noise level from the facility will be calculated at all noise-sensitive receptors. The effects at residential receptors will be determined using BS 4142 'Rating Industrial Noise Affecting Mixed Residential and Industrial Areas, 1997'. This standard is based upon a comparison between the existing L_{A90} background noise levels at local residential receptors with the L_{Aeq} source noise levels of the proposed EfW once operational. The effect of the noise from the operation of the plant will also be considered at the adjoining woodland, the Motorway Services Area and Newbury Showground.
- 7.20 Noise arising from any increase in road traffic upon the local road network, that may occur as a result of the operation and construction of the site, will be calculated using the guidance contained in the Department of Transport publication 'Calculation of Road Traffic Noise' and assessed using the guidance contained in the Design Manual for Roads and Bridges.
- 7.21 Expected sources of environmental noise and vibration to be included in the noise impact assessment would comprise, amongst others:
- Demolition and construction, including associated traffic;
 - Fixed external plant;
 - Warning sirens and horns;
 - Road traffic use on local roads;
 - Breakout from plant and vehicles operating within the proposed buildings;
 - Mobile plant movements on site.
- 7.22 Other mitigation will be included within the design and operation of the facility to further reduce any effects of noise on sensitive receptors.

Landscape and Visual

- 7.23 It is envisaged that the below national and local policies will be the most applicable when addressing landscape and visual matters:

National Planning Policy

- Planning Policy Statement 7 (PPS7) – Sustainable Development in Rural Areas

West Berkshire District Local Plan 1991 – 2006 (Saved Policies 2007)

- ENV.18 – Control of Development in the Countryside

7.24 The site lies within the North Wessex Downs Area of Outstanding Natural Beauty (AONB) and the landscape and visual assessment will also address relevant policies within the North Wessex Downs AONB Management Plan.

7.25 In terms of landscape character, the impact of the development will be considered against the relevant character areas identified in the vicinity. This includes the Thames Basin Heaths Character Area (as defined in Natural England's National Character Areas map), Landscape Character Area 8A: Hermitage Wooded Commons Lowland Mosaic (as defined in the Integrated Landscape Character Assessment for the North Wessex Downs AONB) and Landscape Character Type G: Farmed Chalk Mosaic (as defined in The Berkshire Landscape Character Assessment).

7.26 Given the topography and the proposed scale and height of the EfW, its effect within the landscape and its potential visual effect will need careful consideration, although the existing depression of some 8 – 10m will be utilised as much as possible to minimise any effects.

7.27 Preliminary site visits have identified a broad range of both summer and winter views, and a landscape opportunities and constraints plan has been compiled, and factored into the design evolution. The site survey led to the identification of views into the site and potential visual receptors, which include:

- The North Wessex Downs Area of Outstanding Natural Beauty;
- Properties to the north west of Junction 13 of the M4, including North Heath, Gidley Lane, south of North Heath, Chieveley, Horsemoor, Southfields, Downend, south and east of Chieveley;
- Properties to the north east of Junction 13 of the M4, including Priors Court Road, Old Street and Sandy Lane;
- Chieveley Recreation Ground and Village Hall;
- Newbury Showground;
- Properties to the south west of Junction 13 of the M4, including Winterbourne, south and east of Winterbourne and Arlington Lane;
- Properties to the south east of Junction 13 of the M4, including Hermitage and Curridge; and
- Users of the local road network as well as public rights of way and bridleways.

- 7.28 This ES Chapter will determine whether the Proposed Development has the potential to cause significant landscape and/or visual effects, with particular emphasis on the receptors identified above, including the AONB, the Landscape Character Areas and the adjacent Landscape Character Areas in the documents previously identified.
- 7.29 The assessment would be carried out in accordance with the "Guidelines for Landscape and Visual Impact Assessment" produced by the Landscape Institute/Institute of Environmental Management and Assessment, 2002. A Landscape and Visual appraisal of the site and its surroundings would be undertaken.
- 7.30 The assessment would consider the effects of the development scheme on views including those from the visual receptors identified above. From this, critical viewpoints within the surrounding area of the site would be established and verified photomontages of the Proposed Development taken from these viewpoints would then be prepared adhering to best practice guidelines as set out in Landscape Advice Note 01/09 issued by the Landscape Institute.
- 7.31 The effect of the Proposed Development on landscape features including vegetation and character would be considered. The magnitude and significance of the identified effects would be reported. Recommendations to ameliorate any identified effects would be included and conclusions drawn as to the likely nature of residual and landscape effects.

Air Quality

- 7.32 It is envisaged that the below national and local policies will be the most applicable:

National Planning Policy

- Planning Policy Statement 23 (PPS23) – Planning and Pollution Control

West Berkshire District Local Plan 1991 – 2006 (Saved Policies 2007)

- Policy OVS.5 – Environmental Nuisance and Pollution Control

- 7.33 The principal sources of emissions are likely to include:

- Emissions generated by construction plant at the EfW;
- Dust generation during construction works at the EfW;

- Emissions from road traffic associated with the construction and operation of the Proposed Development; and
- Emissions from the operational EfW.

7.34 A passive diffusion tube survey of air quality in and around the site will be undertaken to provide baseline information, utilising any monitoring data that may be available from the Council, including that relating to the operation of the existing quarry.

7.35 These studies will focus on concentrations of nitrogen dioxide (NO₂) and sulphur dioxide (SO₂) concentrations, given that these are able to represent emissions from the main existing sources and are representative of some of the key air emissions released by such facilities.

7.36 Key sensitive receptors will be identified, including urban areas and ecological designations. This will include a search area of 10km from the site for European designations such as Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsar sites, as well as Sites of Special Scientific Interest (SSSIs), and 2km for other statutory sites, non-statutory designated sites, ancient woodlands etc.

7.37 It is not envisaged that traffic generated by this facility will lead to a detrimental effect on air quality and as such it is not considered that full dispersion modelling will be required. However, the ATC data will be assessed in this regard.

Ecology

7.38 In terms of Planning Policy, it is envisaged that the below policies will be the most applicable when addressing ecological matters:

National Planning Policy

- Planning Policy Statement 9 (PPS9) – Biodiversity and Geological Conservation

West Berkshire District Local Plan 1991 – 2006 (Saved Policies 2007)

- Policy ENV.9 – The Impact of Development Proposals on Nature Conservation Sites

- 7.39 Given the existing use of the site as a sand and gravel extraction quarry the site itself is unlikely to be of high ecological value. Consequently, the site does not lie within any ecological designations.
- 7.40 Deans Wood and Smith Copse lie to the east and south respectively, both of which are listed on the Ancient Woodland Register for England; other woodland in the immediate vicinity includes Desmond's Pightle, Copyhold Copse and Basing's Copse to the east and Southfield Pightle, Littledeans Wood, Malthouse Wood, Lanolee Copse and Upper Grange Copse to the south. A number of Local Wildlife Sites are located in these nearby woodland areas.
- 7.41 A Phase 1 habitat survey and a desk based review have been undertaken. In addition, other field surveys have commenced for vegetation and habitats, breeding birds, badger, dormouse and bats. To date this has demonstrated that there is evidence of bat activity using the adjacent woodlands, as well as evidence of great crested newt within a 2km search radius. No evidence of badger and dormouse has been recorded to date, although Surveys for these species are still ongoing.
- 7.42 All surveys undertaken to date have adhered to Natural England and other relevant published guidance and these surveys will continue to enable a full data set to be available. Early breeding bird and amphibian surveys will also be undertaken in Spring 2011, by which time the dormouse studies will have been completed.
- 7.43 Extended Phase 1 surveys will be undertaken and will identify areas suitable for protected and notable flora and fauna. This will focus the requirement for Phase 2 surveys, which will be undertaken in accordance with best practice and national guidance and in liaison with West Berkshire Council, Natural England and Berkshire, Buckinghamshire and Oxfordshire Wildlife Trust (BBOWT).
- 7.44 Key sensitive ecological receptors will be identified in the ES Chapter, which will include, as per the Air Quality discipline, a search area of 10km from the site for European designations such as Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsar sites, as well as Sites of Special Scientific Interest (SSSIs), and a minimum 2km for other statutory sites, non-statutory designated sites, ancient woodlands etc.
- 7.45 Effects on ecological receptors arising from changes in noise, light, air quality, hydrology and landscape proposals will be assessed for the construction, operational and decommissioning phases. This will include assessment of cumulative effects from

other plans and projects, as well as proposed ecological benefits arising from the development proposals.

- 7.46 As the EfW will only comprise a relatively small parcel of land within the extensive quarry area, the restoration of the remaining land can include a number of ecological benefits, not least because the land quality prior to the commencement of extraction was low grade agricultural land and therefore will be unlikely to be used for farming purposes once extraction has ceased.

Lighting

- 7.47 It is envisaged that the below policies will be the most applicable when addressing lighting matters:

National Planning Policy

- Planning Policy Statement 23 (PPS23) – Planning and Pollution Control

West Berkshire District Local Plan 1991 – 2006 (Saved Policies 2007)

- Policy OVS.5 – Environmental Nuisance and Pollution Control

- 7.48 The possible effect of light spillage in the vicinity and wider landscape will be considered. Matters including lighting from internal as well as external sources, such as car park lighting and security lighting, will be considered. Further, the effects of any proposed lighting on bats, which are light sensitive, will be undertaken in conjunction with ecological matters.

- 7.49 No lighting surveys have been undertaken to date. A survey of existing lighting sources and ambient lighting levels in and around the site will be undertaken to establish baseline light trespass and any sensitive receptors.

- 7.50 There is substantial existing lighting in the area as a result of the M4/ A34 junction and associated gantries on the approaches and as such it is not considered that any light emanating from the EfW will have a significant effect on any sensitive receptors or the wider AONB.

Water Resources and Flood Risk

7.51 It is envisaged that the below policies will be the most applicable for addressing water resources and flood risk matters:

National Planning Policy

- Planning Policy Statement 25 (PPS25) – Development and Flood Risk

West Berkshire District Local Plan 1991 – 2006 (Saved Policies 2007)

- Policy OVS.5 – Environmental Nuisance and Pollution Control

7.52 The construction and operation of the plant has the potential to have an effect on hydrology and hydrogeology, including emissions to the underlying groundwater and surrounding surface water systems and foul water drainage. The site is located within an area defined as a Groundwater Source Protection Zone 3. The site overlies an aquifer, which is a source of public water supply.

7.53 Consultation will be undertaken with the Environment Agency, West Berkshire Council, Thames Water and the British Geological Society in order to obtain all relevant water resource quality and use related information. Additionally, an Envirocheck® report will be obtained from the Landmark Group for additional environmental data. This will be supplemented by a site visit to identify the hydrological setting.

7.54 In order to assess potential risks to water resources associated with the construction and operational phases of the proposed development, the ES chapter will set the development in the context of the applicable legislative and planning policy context as well as detailing the baseline conditions of the proposed development. This will include addressing surface water resources, hydrogeology and groundwater abstractions, as well as water quality and utilities matters.

7.55 The ES will identify and assess effects on groundwater aquifers, existing water abstraction and discharge points and water supplies in close proximity, as well as the significance of these effects. Mitigation measures will be recommended where significant effects are identified, as well as the significance of any residual effects.

- 7.56 Surface water run off, including clean and contaminated run off and run off off-site will be addressed.
- 7.57 The site is shown as being within Flood Zone 1 on the Environment Agency's flood map therefore the risk of flooding from the sea or rivers is low. However, a full Flood Risk Assessment (FRA), in accordance with Planning Policy Statement 25, will be prepared. The FRA will focus on surface water management and effects of groundwater levels but will also address other relevant matters.

Geology and Soils

- 7.58 It is envisaged that the below policies will be the most applicable in relation to geology and soils matters:

National Planning Policy

- Planning Policy Statement 9 (PPS9) – Biodiversity and Geological Conservation
- Planning Policy Guidance 14 (PPG14) – Development on Unstable Land

- 7.59 A desk based study and appraisal of the site's geology and soils has been undertaken using publish land quality, soil survey maps and geological maps. As previously stated the site is currently a quarry being mined for sand and gravel extraction. The site also lies within the Reading Formation, which is subject to landslide and susceptible to moisture change. The quarry is a Local Geological Site (formally known as a Regionally Important Geological Site).
- 7.60 The potential effect on the Local Geological Site will be assessed in accordance with best practice and national guidance and in liaison with West Berkshire Council and the Berkshire Geoconservation Group.
- 7.61 No detailed land stability investigations have been undertaken to date but these will be undertaken as part of the EIA process to further establish ground conditions and to determine any geotechnical limitations in accordance with BS 5930:1999 Code of Practice for Site Investigations.
- 7.62 The ES will also assess the potential for the proposed development to generate effects on loss of the soil resource against the original quarry restoration plans.

- 7.63 The soil resource work will comprise a hand auger survey at approximate 100m grid intervals to identify soil types. The calculation of Agricultural Land Classification (ALC) grading will follow the revised guidelines and criteria published by the Ministry of Agriculture, Fisheries and Food (MAFF, 1988). This will be included within a report on the soil resources, which will form an appendix to the soils chapter in the ES.

Socio-Economic Effects

- 7.64 A desk based analysis of secondary data and key legislation and guidance will be assessed, studying potential effects on various matters including population, employment, housing, tourism and recreation, during construction and the operational phase. It is therefore evident that a whole suite of planning policies will be applicable to assess socio-economic effects. As such, specific policies have not been highlighted here.
- 7.65 The site is located in an area with a growing population and a fairly low unemployment rate. Given the instability in the current national economic climate however these particular aspects are subject to wider ranging fluctuations at present than in normal economic circumstances. The nature of the businesses and skills in the area are highly skilled with a lower proportion in construction, manufacturing and utilities industries.
- 7.66 The ES will provide a complete assessment of any proposed effects of the Proposed Development on the human population that live and work in close proximity to the Application Site. The analysis will not only assess the existing baseline socio economic conditions but also the potential of the Proposed Development to facilitate both direct and indirect employment in the local area.
- 7.67 The analysis will consider the baseline conditions currently associated with the Application Site and its surrounding area, the likely significant effects of the Proposed Development, any mitigation measures required to prevent, reduce or offset any likely significant effects and any likely residual effects.
- 7.68 Data sources that will be consulted comprise, amongst others, 2001 Census Derived Data (General demographics, Employment and Skills, Household Composition, Accommodation, Travel, Health), Mid-Year Population Estimates, NOMIS Official Labour Market Statistics, Indices of Multiple Deprivation, Experian data, the South East England Intelligence Network, Development Plan Documents and associated evidence base documents, Annual Monitoring Reports and the South East England Development Agency (SEEDA) Regional Economic Strategy.

Other Environmental Effects

Archaeology and Cultural Heritage

- 7.69 The site has been subject to extensive extraction as a result of the sand and gravel quarry operations and as such it is not anticipated that further activities pursuant to this facility will have an effect on archaeology.
- 7.70 Three Grade II listed buildings, Copyhold Farmhouse, Lanolee and Pens Cottage, lie within 600 metres of the edge of the site, but all are separated by the existing woodland and are not located along the access roads. There are no Scheduled Ancient Monuments in close proximity.
- 7.71 However, an assessment of any effects on the local archaeology and cultural heritage can be made, in conjunction with West Berkshire Officers, through a desk based assessment which can accompany the planning application. Given this, it is therefore not considered necessary to address these matters more fully through a formal ES chapter and it is therefore proposed to scope this discipline out of the EIA process.

Waste

- 7.72 There will be some waste arisings, especially during the demolition and construction phase that will not be able to be processed at the EfW once it is operational.
- 7.73 However, it is considered that given the level of such arisings, and their short term nature, a Waste Minimisation Statement and a Site Waste Management Plan can be produced to accompany the planning application.
- 7.74 Consequently it is not considered necessary to address waste matters in the ES and it should therefore be scoped out of the EIA process.

Arboriculture

- 7.75 Given the existing quarry use there are no trees on the site. Further, any new buildings or associated construction activity, including the extended access track, will be appropriately distanced from the peripheral woodland.

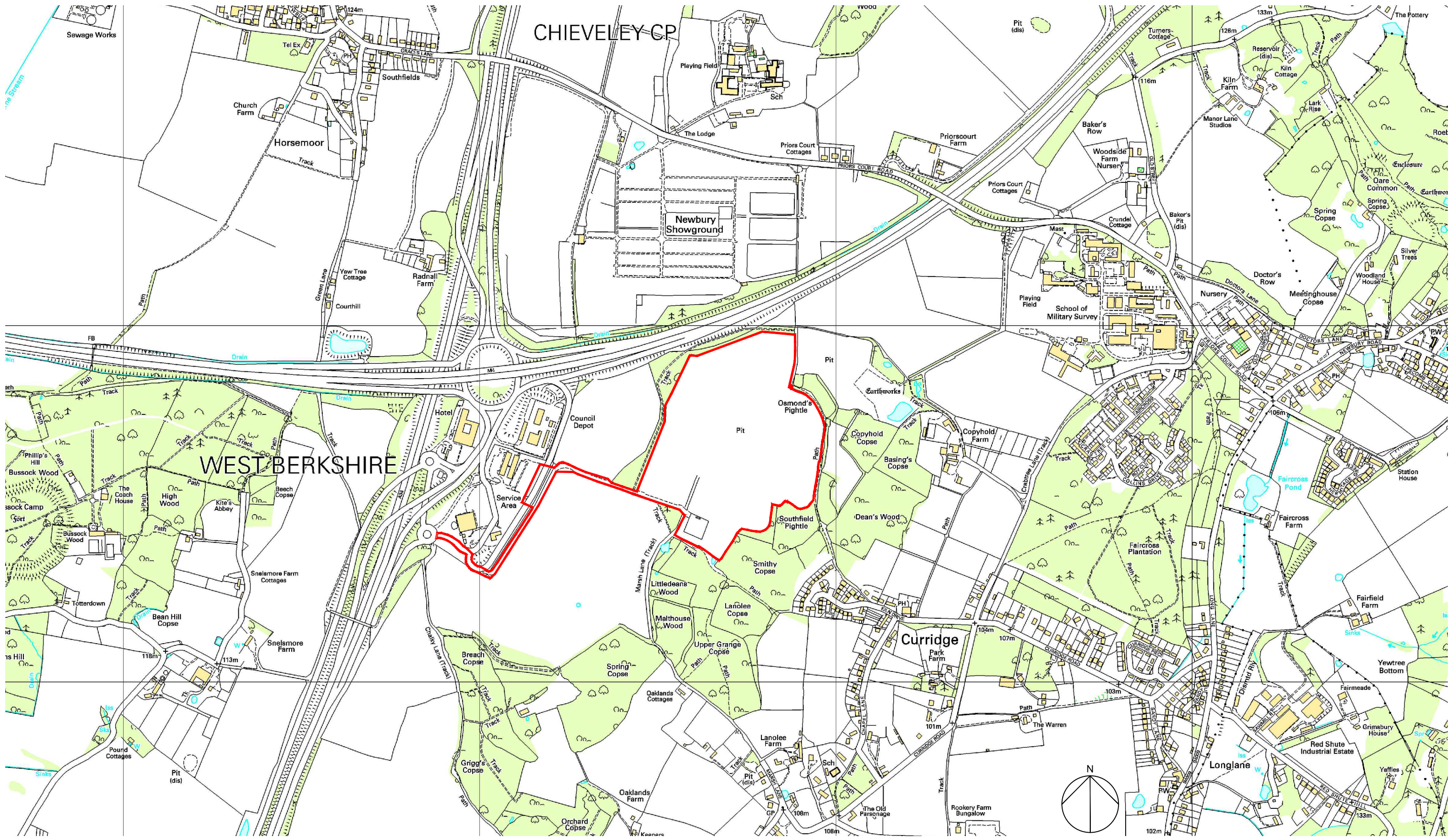
- 7.76 A full tree survey of the woodland edges will be undertaken, in liaison with West Berkshire Officers, to further inform any effects on the local tree stock, but it is not considered necessary to address arboricultural matters more fully through a formal ES chapter and it is therefore proposed to scope this discipline out.

Land Contamination

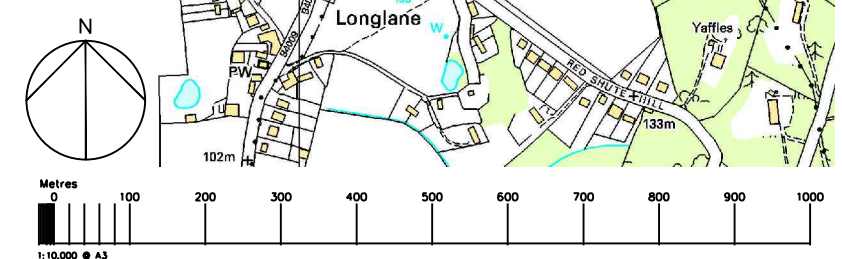
- 7.77 The existing quarry has been subject to the extraction of sand and gravel only and as such it is not considered that such extraction will have lead to any land contamination matters. Further, the restoration conditions pursuant to the sand and gravel extraction permission will ensure that any earthworks undertaken in relation to that restoration will be subject to strict environmental standards.
- 7.78 Any verification reports produced as a result of the restoration programme will be provided and consequently it is not considered necessary to address land contamination matters more fully through a formal ES chapter. It is therefore proposed to scope this discipline out.

APPENDIX 1

SITE LOCATION PLAN



SITE BOUNDARY - 1:10,000 @ A3



CROWTHER ASSOCIATES
PELHAM HOUSE 25 PELHAM SQUARE BRIGHTON
 EAST SUSSEX BN1 4ET TEL: 01273 899535

ENERGY FROM WASTE
 SCOPING SITE BOUNDARY

| | | | | | | | |
|---------|---|-------------|---------------|---------|--------|-------|---|
| CLIENT | GRUNDON WASTE MANAGEMENT | SCALE | 1:10,000 @ A3 | JOB NO. | C-0830 | REV. | C |
| PROJECT | OLD KILN QUARRY EW, EAST OF CHIEVELEY MOTORWAY SERVICES | DRAWING NO. | OS 001 | DATE | 09/10 | DRAWN | |

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