

St Regis Paper Company Ltd and E.ON Energy from Waste

**Sustainable Energy Plant, Kemsley Paper Mill, Kemsley,  
Sittingbourne, Kent**

Sustainability Appraisal

**March 2010**

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## Summary

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A Sustainability Appraisal (SA) has been completed with reference to the proposed Sustainable Energy Plant (SEP) at Kemsley, Sittingbourne, Kent.

The purpose of an SA is to gather relevant environmental, social and economic objectives from national, regional and local policy objectives and to critically evaluate the proposed facility against these objectives. Over one hundred and sixty questions were identified through the policy objective review, against which the development has been appraised. The results of this appraisal have proved to be favourable, with the key strengths identified as follows:

- The development holds the opportunity to reduce the amount of waste potentially going to landfill. It promotes waste management in a sustainable manner in line with the Waste hierarchy with energy recovery from pre treated waste. **The SEP will import as its feed stock approximately 500,000 to 550,000 tonnes per annum of pre treated waste comprising Solid Recovered Fuel waste, Commercial & Industrial waste and Municipal Solid Waste. The plant may accept up to approximately 25,000 tonnes of waste plastics from the paper mill.**
- The paper mill requires a high volume of heat in its production processes. The SEP will generate power and provide heat to the mill in the form of steam. The SEP will achieve Good Quality CHP status which means that it is a high energy plant.
- The power and steam demands of the mill are currently met by the on-site CHP plant, which is fired by natural gas, and by a paper sludge combustor. As the SEP will provide energy to the mill, the demand for energy from the gas fired CHP plant will be reduced. This will increase the fossil fuel efficiency by generating energy from a fuel which is partly biogenic and by reducing the level of natural gas used by the CHP plant.
- It is estimated that 500 people will be employed during the construction phase. It is estimated that the proposed development will create 50 permanent full time jobs.

Overall, the development represents a considerable contribution to the sustainability of Kent as a county and the South East region; effective, efficient and integrated waste management is a crucial element in any sustainability programme. The development also supports the future viability of an established Kent business.

A number of points relating to the SA are drawn out as points for potential further action within the conclusion, including the use of an Environmental Management System (EMS) during the operation of the facility.





# 1 Introduction

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1.1 This Report presents the Sustainability Appraisal (SA) which has been produced for the proposed Sustainable Energy Plant (SEP) at Kemsley, Sittingbourne, Kent. This SA is produced to accompany the planning application alongside the Environmental Statement and supporting documents.

## Proposed Development

1.2 The applicants, St Regis Paper Company Limited and E.ON Energy from Waste is propose to develop a Sustainable Energy Plant (SEP). The capability to generate in excess of 50 MWth per hour of steam to the paper mill. Dependent upon its calorific value, the SEP will import as its feed stock approximately 500,000 to 550,000 tonnes per annum of pre treated waste comprising Solid Recovered Fuel waste, Commercial & Industrial waste and Municipal Solid Waste. The plant may accept up to approximately 25,000 tonnes of waste plastics from the paper mill. The proposed development will secure the generation of sustainable energy at the plant, which in turn will support the economic viability of the paper mill.

1.3 Within the introduction the need for the sustainability appraisal is discussed, a methodology is provided within section 2, and the results provided within section 3.

1.4 In summary, the development will comprise:

- The power generation capability to generate in excess of 50 MWth per hour of steam to the paper mill. Dependent upon its calorific value, the SEP will import as its feel stock approximately 500,000 to 550,000 tonnes per annum of pre treated waste comprising Solid Recovered Fuel waste, Commercial & Industrial waste and Municipal Solid Waste.
- The plant will accept up to approximately 20,000 to 25,000 tonnes of waste plastics from the paper mill
- The plant is a recovery plant under the R1 calculation of the Waste Directive.
- The average net calorific value of 10.5 MJ/kg will fall within the range of 8 MJ/kg to 16 MJ/kg.
- Power generation capability of 48.5 MWe of electricity per hour net.
- Grid connection cables to supply generated electricity to the public supply network.
- Two line moving grate with thermal combustion capacity of 100 MW per line.
- Two stacks with a height of 90 meters from ground level.
- Waste reception hall and waste storage bunker.
- Waste handling systems and feed hoppers.
- Bottom ash handling.

- Bottom ash storage and maturation facility.
- Flue gas treatment.
- Boiler, steam turbine and air cooled condensers
- Heat extraction system and infrastructure providing connectivity to adjacent paper mill.
- Weighbridge and access arrangements.
- Control room.
- Transformer
- Site landscaping
- Importation of approximately 20,300m<sup>3</sup> of clean inert fill.

1.5 The development is described in further detail in Chapter 4 of the Environmental Statement.

1.6 Further details of the site and its surroundings, the process description and the plant and site layout are included in Chapters 1 and 2 of the Environmental Statement and associated Figures. It is a sustainable use for the site to bring it back into viable use for the future energy requirements of the St Regis Paper Mill. If the development of the facility were not to go ahead then the future competitiveness of the paper mill will be placed at risk.

## **Sustainability Context**

1.7 The main SA within this report answers a number of questions developed as a result of review of national, regional and local policies. There are, however, a number of headline issues associated with the development that merit discussion at the outset, and they are set out below.

1.8 The Kemsley SEP development has been proposed by St Regis Paper Company Ltd and E.ON Energy from Waste, the owners/operators of the Kemsley Paper Mill and CHP as the most technically and economically viable solution for the future power supply to the Mill. The SA is an appraisal of the preferred solution for fulfilling this need and must be considered in context. It is not an appraisal of the proposal with waste management methods for Kent.

1.9 The principal elements within the Kemsley SEP proposals which can be highlighted as being the principal sustainable elements of the project have been identified through the sustainability appraisal as:

- The reduction in both tonnage of waste sent to landfill and emissions of CO<sub>2</sub>e and methane from landfill due to the use of pre treated waste from which recyclate has been recovered.
- The close proximity of the energy production to its source and to the grid, minimising transmission losses.

- 1.10 It is intended to house the components of the Kemsley SEP in a building which will achieve sustainable design strategies and a number of steps have been taken with regards to the sustainability of the building such as consideration to low impact finishes and reuse of the steel structure in the future.
- 1.12 Significant efforts have been made to holistically consider sustainability within the development to support all three of the sustainable pillars: economy, environment and society. Some of the principal overall strengths of the development are highlighted below.

### **Environment**

- 1.13 The benefits to the environment from the Kemsley SEP facility are two-fold. Firstly, as part of the development St Regis Ltd is expecting to produce 48.5MW of electricity and to further improve the overall sustainability of energy use at the site by using the steam from the proposed plant in the paper making process, so displacing some of the steam generated from fossil fuel sources. A proportion of the electricity produced is also to be supplied to the grid. Secondly, the development will contribute to meeting Kent and regional targets for the reduction of waste going to landfill as the pre treated commercial and industrial, municipal and SRF waste will be principally sourced from Kent with the balance from London and the South East Region. The facility may also make use of rail and barge /ship borne feedstock as well as transporting fuel by road.

### **Society**

- 1.14 The benefits to society from the Kemsley SEP principally centre around the provision of a sustainable source of energy from sources alternative to fossil fuel and also improvement to waste management in Kent, London and the South East Region, which makes for a more pleasant environment to live in.

### **Economy**

- 1.15 The Kemsley SEP is not principally an employment-generating venture, yet it will nevertheless lead to the employment of almost 50 additional staff within the local area, requiring a mixture of skills. The development is significant in scale within the borough and its contribution to the local economy will go beyond that of its direct employment benefits. Goods and services required for its operation are potential avenues for business expansion within the borough. It is also important to consider the long lifetime of the facility (an approximate building lifetime is 60 years), providing a secure long-term benefit in terms of employment.

## Need for Sustainability Appraisal

1.16 As stated in 'Planning Policy Statement 1: Delivering Sustainable Development:

*'Sustainable development is the core principle underpinning planning...National planning policies and regional and local development plans provide the framework for planning for sustainable development. This plan led system plays the key role in integrating sustainable development objectives. Where the development plan contains relevant policies, applications for planning permission should be determined in line with the plan'.*

1.17 The principles of sustainable development:

*'should be pursued in an integrated way through a sustainable, innovative and productive economy that delivers high levels of employment, and a just society that promotes social inclusion, sustainable communities and personal well being, in ways that protect and enhance the physical environment and optimise resource and energy use'*

*(UK Government Sustainable Development Strategy 'Securing the Future', March 2005).*

1.18 Under the Planning and Compulsory Purchase Act 2004, all new development plans are subject to a sustainability appraisal, with the purpose being *'to promote sustainable development through the integration of social, environmental and economic considerations into [the plan] preparation'* (ODPM, November 2005).

1.19 The proposed SEP falls within the administrative area of Kent County Council (the Waste Planning Authority for this development). In the current context, the development plan comprises:

- Government Office for the South East, Regional Planning Guidance for the South East RPG9: Waste and Minerals (June 2006).
- South East England Regional Assembly, South East Plan (adopted 2009)
- Kent Joint Municipal Waste Strategy (April 2007)
- Kent Minerals and Waste Development Scheme Second Review (2009); note that this document sets out the programme for the preparation of Development Plan Documents during the period 2009-2012. Under this programme the Council will prepare:
  - Minerals and Waste Core Strategy DPD
  - Mineral Sites DPD
  - Waste Management Sites DPD

- 1.20 Although there is no statutory requirement for applicants to undertake a Sustainability Appraisal of a specific project, developers of major developments are frequently asked by Planning Authorities (LPAs) to demonstrate that they have taken sustainable development concepts into account within their proposals, particularly where no such appraisal has been conducted by the LPA itself. In some circumstances, the LPA has set a specific requirement to undertake a sustainability appraisal, depending on the size and nature of the development. In this case, Kent County Council does not require the submission of such an assessment and though the developer considers it good practice to provide one. The aim of the developer is to produce a SEP that will fulfil environmental, social and economic requirements in the short and longer term and this report sets out how the proposals will achieve this, in the context of relevant policies and guidance.

### **The Purpose and Overall Need of Sustainability Appraisals**

- 1.21 The ODPM Guidance 'Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents' November 2005, states, in the context of local development documents, that the purpose of SA is *'to promote sustainable development through the integration of social, environmental and economic considerations into the preparation of plans.'* Appraisal objectives are set to define the detail of the social, environmental and economic considerations that need to be taken into account.
- 1.22 Furthermore, the ODPM Guidance explains *'the role of the SA is to assist with the identification of the appropriate options, by highlighting the sustainability implications of each, and by putting forward recommendations for improvement'*.
- 1.23 Sustainability appraisals are objective-led, appraising the proposed development against relevant objectives, as opposed to following the EIA approach of identifying the significant environmental effects of the proposed development. Accordingly, in circumstances where environmental objectives are assessed as not being met by the sustainability appraisal, this does not mean that a significant adverse environmental impact arises (unless this is separately identified in the Environmental Statement).
- 1.24 The objectives of a SA are defined taking into account the SA objectives of relevant local planning documents. This is not the same as a Planning Policy Review. Where the SA assesses that an appraisal objective is not being met, this should not be interpreted as indicating that a planning policy is not met.
- 1.25 The aim of this SA is therefore;
- to appraise the extent to which social, environmental and economic considerations, as defined by relevant sustainability objectives, have been integrated into the proposed development; and

- To identify recommendations by which the proposed development can be enhanced.

1.26 The approach taken for this SA has been developed based on current best practice, referring to the ODPM guidance where appropriate.

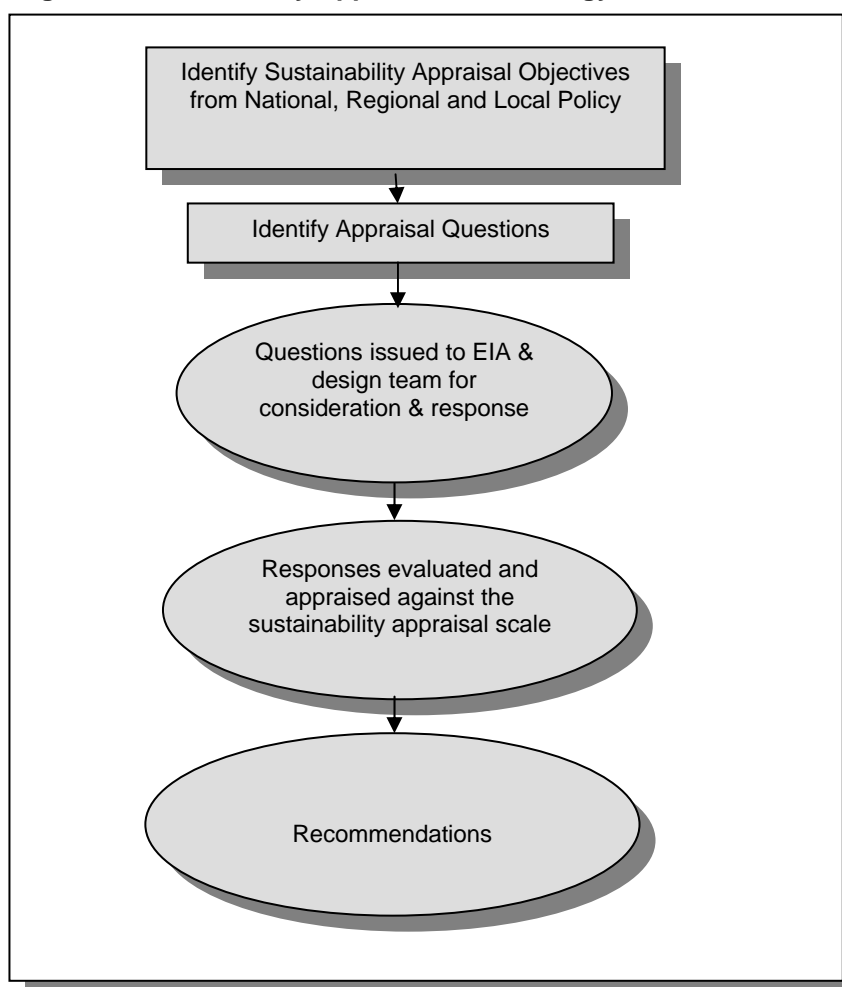
## 2 Approach to Sustainability Appraisal

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### Sustainability Appraisal Stages

- 2.1 The principles set out in government policy/guidance for the SA of local and/or regional planning policies (such as the ODPM guidance '*Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents*', November 2005) have been followed where appropriate.
- 2.2 The approach that has been followed consists of four main stages: identifying appraisal objectives, identifying appraisal questions, appraising the proposals and making recommendations; as illustrated in Figure 1.

**Figure 1: Sustainability Appraisal Methodology**





## Review of Sustainability Appraisal Objectives

- 2.3 The first stage is to identify the relevant objectives against which the proposed development is assessed. The ODPM guidance recommends the development of SA objectives *'to provide a methodological yardstick against which the social, environmental and economic effects ... can be tested.'* The appraisal objectives should both reflect the sustainable framework for this area of England and be achievable and relevant to the scope and level of detail of information available for this project.
- 2.4 The following sources were reviewed in developing the SA objectives relevant to this appraisal:

### National Policies

- Waste Strategy for England (2007)
- National air Quality Strategy (2007)
- PPS1: Delivering Sustainable Development (2005)
- PPS1: Planning & Climate Change Supplement to PPS1
- PPG4: Industrial and Commercial Development & Small Firms (1992)
- PPS9: Biodiversity & Geological Conservation (2005)
- PPS10: Planning for Sustainable Waste Management - Principles for Location (July 2005)
- PPS 10: Locational Criteria (as defined in Annex E)
- PPG13: Transport (2001)
- PPG14: Development on Unstable Land (1990)
- PPG15: Planning and the Historic Environment (1994)
- PPG16: Archaeology and Planning (1990)
- PPS23: Planning & Pollution Control (2004) including Annex 1 (Air & Water Quality) and Annex 2 (Development of Land Affected by Contamination)
- PPG24: Planning & Noise (1994)
- PPS25: Development & Flood Risk (2006)

### **Regional Policies**

- Government Office for the South East, Regional Planning Guidance for the South East (RPG9): Waste and Minerals (June 2006).
- South East England Regional Assembly, South East Plan (adopted 2009)
- South East Regional Assembly, The South East Regional Sustainability Framework – ‘Towards a Better Quality of Life’ (March 2008)
- SEEDA Sustainability Checklist

### **Local Policies**

- Kent Joint Municipal Waste Strategy (April 2007)
- Swale Borough Local Plan (2008)
- Kent Minerals and Waste Development Scheme Second Review (2009); note that this document sets out the programme for the preparation of Development Plan Documents during the period 2009-2012. Under this programme the Council will prepare:
  - Minerals and Waste Core Strategy DPD
  - Mineral Sites DPD
  - Waste Management Sites DPD
- These documents are still being prepared and the current review document highlights in Appendix 5 the policies from the Kent Waste Local Plan (March 1998) which have been saved.

### **Develop Appraisal Questions**

- 2.5 Following identification of the relevant SA objectives, a series of 161 appraisal questions were defined to be used to determine.
- 2.6 The aim is to identify questions that are simple and practical and able to demonstrate whether the objective is achieved. They also need to be feasible to answer at this stage and relevant to the proposed development.
- 2.7 The appraisal questions used for this SA are presented in the Sustainability Framework as shown in Table 2-1.

Table 2-1: Sustainability Framework

Sustainability Appraisal Objective	Category of Impact	Question No.	Question (questions with a * are taken directly from the SEEDA sustainability checklist)
Sustainable Consumption and Production	BREEAM	1	*What BREEAM/EcoHomes rating is sought for the proposed buildings? For a building type not covered by BREEAM use the "Offices" scheme as the basis for a bespoke evaluation, or contact BREEAM for further advice.
	Buildings / Built Environment	2	*What proportion (by mass) of building materials used in the construction of the public realm and infrastructure will be specified as low environmental impact?
		3	*Will the development seek to reduce the likelihood of contributing to a heat island effect through: A. Provision of appropriate shaded green space and tree cover B. Green roofs and vegetated walls C. Design to enable air-flow throughout the development D. Passive cooling designed-in E. Open water and fountains in public spaces F. Shaded public spaces and footpaths
		4	*What percentage of the existing buildings on site will be re-used / refurbished?
		5	*How much local reclaimed or recycled materials will be used for road construction?
		6	*Does the developer have a strategy to use locally sourced materials in the development (we would generally expect this to be within 35 – 50 miles of the site)?
		7	*Does the developer have a strategy to use low environmental impact and/or recycled materials in the water and sewerage systems infrastructure?
		8	Is the proposal of a high standard of design which complements the surrounding area?
		9	Does the building re-use any existing structures?
		10	Has whole life costing been used in the design of the facility?
		11	Does the development affect any listed buildings or area of high Townscape Value?
		Construction waste	12
	Infrastructure	13	*Will site heating/cooling/power/water/sewage and communications infrastructure running through the public realm be designed for easy access and allow for future expansion of services?
		14	How does the development link with other green infrastructure?
	Use of land	15	*How can the site be best characterised? A. Contaminated land – remediated or awaiting remediation B. Brownfield – derelict urban land. C. Undeveloped – includes residential gardens. D. Other: including brownfield – rural land, designated open space, designated sports pitches or recreation land, green belt, high quality agricultural land, land designated as of ecological importance, land with workable or potentially workable minerals, land at moderate or significant risk of flooding (Environment Agency Flood Zones 2 & 3 in England)
		16	*How much of the development site will be previously developed or brownfield land which will be brought back into use by this development?
		17	Is the development to be on contaminated land? If so, do the development proposals deal with this adequately in terms of remediation?
		18	Has the developer considered whether there are source-pathway-receptor linkages both to the site and from the site and what action is required to break any current linkages or prevent any future ones? Has the risk of contamination been adequately addressed?
		19	Does the development take into account potential instability of land? If the land is unstable does the assessment cover issues in PPG14?
		20	Is the development in an appropriate location for its industrial purpose; are there any perceived or actual conflicts in terms of land use? Are adjacent land uses compatible?
		21	Does the development prejudice the development of other sites in any way - through its nature and scale, access and infrastructure linkage?
		22	What is the planning status / local development status of the land on which the development is planned ?

Sustainability Appraisal Objective	Category of Impact	Question No.	Question (questions with a * are taken directly from the SEEDA sustainability checklist)	
		23	Will the development affect any agricultural land uses nearby?	
		24	Is the development a positive contribution to the rural-urban fringe?	
		25	Are any rights of way affected?	
		26	Does the development represent suburban intensification which may assist wider planning objectives in the area?	
		27	Does the development contribute to Sittingbourne as a market town?	
		28	Is the development in line with policies relating specifically to the Thames Gateway Planning Area?	
		29	Does the development prejudice the separation of any settlements?	
		30	Is the development already on a site identified as having potential for an EfW in Saved Policy W11 of the Local Waste Plan (1998) now incorporated into the Kent minerals and Waste Development Scheme (Second Review, 2009)?	
		Waste management	31	Does the development promote sustainable waste management in line with the waste hierarchy (reduce, reuse recycle, recover)? Does the development use only fuel derived from residual waste?
			32	Does the development encourage an integrated approach to waste management?
	33		Does the development achieve better integration between municipal and non municipal waste.	
	34		Does the development represent a long term investment in waste infrastructure and is the maximum environmental benefit achieved from the investment?	
	35		How will any litter arising from the development be controlled?	
	36		Does the development promote regional and sub regional sufficiency where pragmatic in terms of waste management capacity. On what basis does the development treat waste from London?	
	37		How is the development integrated with other waste management practices in the local area?	
	38		What is the contribution of the facility to meeting statutory waste targets?	
	39		how much of the waste to be used by the facility would go to landfill without the development going ahead?	
	40		Does the use of waste at this site discourage recycling and composting?	
	Water resources	41	Does the development represent a cost effective way to treat waste?	
		42	does the development produce or use any PFA?	
43		Does the development have appropriate controls on leachate?		
44		*How will the development meet the required water demands placed upon the site?		
45		Does the development have a detrimental impact upon ground water storage capacity?		
46		Does the development protect and improve water quality and reduce the risk of pollution, especially to vulnerable groundwater?		
47		Does the development affect any nearby water resources in any way - does it reduce / contribute or have a neutral effect on sustainable abstraction from watercourses / aquifers?		
Climate Change and Energy		Carbon emissions	48	How does the development limit CO <sub>2</sub> emission - through both its operation as a facility and as a built structure?
	49		Has an assessment of the CO <sub>2</sub> impacts of the development been made in comparison to alternative scenarios?	
	Climate change	50	Is the building / development designed to cope with future changes to climate e.g. more extreme weather events and potential subsidence? Has adaptation been adequately considered?	
	Energy efficiency & renewable energy	51	*What steps will the developer take to prepare an energy strategy for the proposed development to optimise the energy consumption of the site?	
		52	*What % of total site energy demand will be produced from an on-site renewable scheme (e.g. wind, solar, hydro, photovoltaic bank, CHP operating on biomass or waste)?	

Sustainability Appraisal Objective	Category of Impact	Question No.	Question (questions with a * are taken directly from the SEEDA sustainability checklist)	
		53	*To what extent will the development take into account the hierarchy for feasible heating systems	
		54	*What percentage of buildings will be designed for and to be equipped with solar water heating and/or photovoltaic cells?	
		55	*What percentage of the development not intended to be fitted with active solar devices such as photovoltaic and solar hot water heating by the developer will be designed to allow future installation of these technologies by occupiers?	
		56	*Will the developer make site wide provision for an energy infrastructure that allows renewable energy to be sustained on site?	
		57	*Will the site be smart metered, showing site occupiers net energy use, quantified over separate time periods?	
		58	*How much of the street lighting will be energy efficient with limited upward light transmission?	
		59	Will it help to minimise energy usage and encourage energy efficiency? * Have energy efficiency measures been incorporated into the design proposals including siting, design, layout and orientation?	
		60	Does the development make use of opportunities for decentralised or low carbon energy?	
		61	Does the development use an advanced thermal conversion technology?	
		62	Does the development incorporate, wherever possible, CHP generation and distribution?	
		63	What contribution does the development make to renewable energy targets, both for the development in question, and locally?	
		64	Is energy generated is to be available to the grid / distribution network. If so, is a suitable connection available?	
		Transportation and accessibility	65	*Will the development be within an existing public transport corridor?
			66	*Will the developer install infrastructure in homes and commercial/industrial buildings which will allow the use of virtual communications as an alternative to transport?
	67		*How will car parking standards compare with local authority requirements?	
	68		*Will provision be made for off-road HGV/delivery vehicle loading space for retail, commercial and industrial units?	
	69		*Will there be a network of safe bike routes to local facilities near to and overlooked by, roads and pavements?	
	70		*What provision will be made for secure bicycle storage at local facilities and at transport nodes?	
	71		*To encourage more frequent use of public transport during the entire year, are waiting areas which are considered safe and out of the weather provided?	
	72		*Will there be a traffic management plan in place which encourages the safe passage of vehicles through the development at an appropriate speed and without rat runs? Note this could include passive design measures (e.g. Road narrowing, surface treatments etc).	
	73		Will it help to reduce the distances people have to travel on a regular basis?* (take 'people' as meaning relevant persons)	
	74		Does the development make use, where practicable of modes of transport other than road e.g. rail, river?	
	75		Will a travel plan be produced for the development?	
	76		Will the traffic generated be detrimental to road safety for safe pedestrian and cycle movements?	
	77		Is the existing road capacity adequate for the development - is the access to the site suitable - are any improvements required?	
	78		For staff and users of the building is the development accessible by sustainable means of transport at appropriate times (especially if shift work is involved)	
	79		Does the development affect any rural lanes - physically or with increased traffic levels which could harm their character?	

Sustainability Appraisal Objective	Category of Impact	Question No.	Question (questions with a * are taken directly from the SEEDA sustainability checklist)
natural resources protection and environmental enhancement	Air quality	80	Has the development made an assessment of emissions to air including dust, smoke, ash or grit and are adequate mitigation measures employed?
		81	Does the development give rise to other sources of disturbance from odour /fumes? If so, how are these effects mitigated?
		82	Is the development in line with both the relevant objectives from the National Air Quality Strategy and the relevant local Air Quality Strategy. Is Air Quality a material consideration for this development?
	Archaeology	83	*What will happen to heritage/archaeologically important features and their settings which could be affected by the development?
		84	Has an adequate archaeological assessment taken place and are statutory frameworks for protecting and recording any remains to be followed?
	Cumulative impact	85	Have all the cumulative impacts of the development been appropriately addressed?
	Ecology, biodiversity & conservation	86	*Will a full ecological survey be carried out, by a qualified ecologist, to examine habitats in and around the site and migration routes across the site?
		87	*Will there be an increase in important or sensitive habitats identified in the local biodiversity action plan (LBAP), either by area or increased ecological value (as assessed by an ecologist) or support for a species identified in the Biodiversity Action Plan?
		88	*Will any new wildlife corridors be created to link habitats within the site or link to habitats outside the development?
		89	*Has a mixture of locally occurring native trees and shrubs been specified?
		90	*What proportion of timber used in the construction of the public realm and infrastructure will be from an independently verified sustainable source?
		91	How will the proposal affect the region's objective to protect, enhance and manage the rich diversity of the natural environment and to enhance and conserve the environmental quality of the region?*
		92	Does the development conserve, enhance or restore ecological diversity and support its role in contributing to a high quality environment?
		93	Will it help to protect and improve the management the region's biodiversity (i.e. habitats or species)? * Will there be no net loss of priority habitats and species and no damage to EU designated Natura 2000 sites?
		94	Does the development help create any new areas of woodland with priority for any native species?
		95	Are all nature conservation features retained unless avoidable? This includes mature trees, hedgerows, shrub areas, water features, geological features and other Biodiversity Action Plan priority habitats and species.
		96	Does the development compromise the long term retention of any trees / groups of trees, woodland providing amenity and in particular any trees with tree preservation orders?
		97	Is all relevant biodiversity legislation complied with e.g. the Habitats Directive?
		98	Are any ANOB's affected?
		99	Is the development to have an adverse effect on any of the following; local nature reserve, ancient woodland, a site of nature conservation interest or a regionally important geological / geomorphological site?
		100	Is planting made up of native ( regional or local) plant species for soft and hard landscaping, surface and boundary treatments?
Flood risk		101	*Is the development sited and designed in accordance with the sequential test set out in PPS 25?
		102	*Following a comprehensive Flood Risk Assessment, what measures have been taken to reduce the contribution the development may make to flash flooding?
	103	*What percentage of the total roof area in the development is designed to allow the harvesting of rain water for re-use and/or is covered by green roofs?	
	104	*Will the development have provision for community management of facilities, open space, SUDS, grey water schemes etc.	

Sustainability Appraisal Objective	Category of Impact	Question No.	Question (questions with a * are taken directly from the SEEDA sustainability checklist)	
		105	Does the development lie within an undefended area at risk of flooding?	
		106	Does the development create or exacerbate flooding elsewhere for example by impeding the flow of floodwater?	
		107	Does the development result in the loss of natural floodplain?	
		108	Does the development interfere with natural coastal processes if applicable?	
		109	Does the development impede access to a watercourse for maintenance or flood defence purposes?	
		110	Are any proposals for flood risk management adequately funded over the developments lifetime?	
		111	Does the development incorporate the use of SUDS, and where necessary flood resilience measures?	
	Geology	112	Does the development conserve, enhance or restore geological diversity?	
	Light pollution	113	*Will the security lighting strategy be designed to minimise light pollution and disruption to neighbours?	
	Noise pollution	114	*Will the site be designed to minimise the impact of noise from external sources?	
		115	Does the development take into account noise intrusion and has an assessment been made of its character as well as its level? Is the development noise sensitive itself?	
		116	Have appropriate sources of noise control been considered - engineering / layout /administrative arrangements?	
		117	Does the development give rise to other sources of disturbance from vibration? If so, how are these effects mitigated?	
	River and ground water quality	118	*If there are any public or private surface or groundwater abstractions on or close to the site (within 2 km), are pollution prevention measures being installed to ensure that water quality is not adversely affected during and after development.	
	Sustainable Communities	Community	119	*Will a social impact assessment be carried out to examine the impact of the development on the existing community?
			120	*Has the community been actively involved in the development proposal:
			121	*Have local community stakeholders have been told about the proposal (e.g. public notices and adverts) so that they can comment to the Planning Authority
			122	* Have local community stakeholders have been consulted for opinions on a pre-prepared scheme (e.g. leaflets and return forms)
123			* Have local community stakeholders have been asked to select their preferred option from a range of schemes and their preferred proposal has been put forward (e.g. through remote surveys or through a public meeting)	
124			*Have local community stakeholders have been involved in the preparation of this proposal (e.g. through workshops or participative processes)	
125			Is the design 'inclusive' - is all relevant DDA legislation to be followed?	
126			Has stakeholder consultation taken place?	
127			Does the development provide or contribute to any local community services or facilities?	
Culture		128	Does the development impact on a conservation area or any of the regions nationally and internationally designated cultural assets?	
		129	Does the site itself have a historic use, of national or local interest? Have English Heritage been consulted (if appropriate)?	
		130	Will it help to protect or enhance existing features of the historic built environment? * including listed buildings, World Heritage Sites, Historic Parks and Gardens, Historic Battlefields, and the wider historic landscape. Do the relevant assessments make an assessment of how change is absorbed?	
		131	Does the site itself have any historical importance (separate to its archaeological status)	
		132	Is any public art included in the development?	
Economy,		133	*Will new business space increase/maintain the viability of existing	

Sustainability Appraisal Objective	Category of Impact	Question No.	Question (questions with a * are taken directly from the SEEDA sustainability checklist)	
	enterprise and innovation		businesses?	
		134	*Will the development be designed to suit the needs of prioritised business sectors as identified in the RES?	
		135	*Will the development be designed to attract inward investment?	
		136	*Is new business space being developed close to current business centres to enable bulk purchasing, shared costs e.g. landscaping, shared Green Transport plan, facilities etc?	
		137	*Will flexibility be designed into commercial units to provide adaptability to changing market needs?	
		138	Does the development help promote a market for recycled and recovered materials / products / by-products?	
		139	Could the development adversely affect local tourism?	
		140	Does the development contribute to economic growth and competitiveness in the region?	
		Education & skills	141	How will the development change the perception of waste to regard it is a resource and in the policy shift from disposal to processing.
			142	How will the development improve the quality and availability of information available on waste treatment in the local area?
	143		How many jobs of what skill level and duration will be created by the local community?	
	144		Does the development offer education which can inform, educate and work towards changing the behaviour of residents, consumers and the wider economy in regards to waste?	
	Effective management	145	What monitoring will be carried out on the to monitor performance on both the building (e.g. commissioning of building services) and operational performance (other than those conditions to be imposed by the EPR)	
		146	Is an EPR being developed? What are the major issues? Is the EPR being submitted at the same time as the planning application?	
		147	Is there sufficient funding in place / commitment to maintain any significant drainage / flooding protection provided by the development?	
		148	If the development has a known lifespan - is appropriate restoration and aftercare an integral part of the plans?	
		149	Are the proposed operating hours acceptable?	
	Employment opportunities	150	*What is the potential for the development to create additional permanent jobs either through new business or for maintenance of the development?	
		151	*If the development is part of a publicly funded regeneration scheme, will the contractors engage local labour?	
	Health	152	Does the development influence health in the local area / have the potential to reduce health inequalities?	
	Place making	153	*Will a landscaping scheme be drawn up for the site – to include Public Open Space (POS), street scenes, public/private space boundaries and site boundaries, with landscape and ecological assets preserved?	
		154	Does the development affect the quality, character or amenity value of the local countryside?	
		155	does the design reinforce local distinctiveness and strengthen the sense of place?	
	Regeneration	156	Does the development have the opportunity to positively influence the pattern of local deprivation?	
	Safety	157	*Will the proposed street network provide a high quality public realm with a pedestrian friendly environment?	
		158	*Will development be designed to “Secure By Design” or equivalent standards?	
		159	Does the development involve the storage, handling or distribution of explosive, highly flammable, toxic or corrosive materials If so, are these risks adequately mitigated?	



Sustainability Appraisal Objective	Category of Impact	Question No.	Question (questions with a * are taken directly from the SEEDA sustainability checklist)
	Visual impact	160	Has an assessment been made of the visual intrusion of the development on the townscape / landscape and are appropriate mitigation / enhancement measures proposed?
		161	Does the development consider Swale Borough Council's guidelines contained in the Council's Landscape Character Assessment Guidelines and Supplementary Planning Document?

2.8 The proposed development has been appraised against the appraisal objectives and questions listed above. Information on the details of the proposed development, and the existing/future management and mitigation that has been taken into account has been obtained from the EIA team, the client and the design team.

2.9 A response has been provided for each question, based on available information, with an appropriate comment to support each response.

2.10 Based on the responses to each question for each objective, a concluding response to each objective has been provided, based on the following:-

- ++ = Proactive enhancement/Significant benefits**
- + = Good mitigation/some enhancement**
- 0 = Neutral impact / or not applicable**
- = Minor impacts, not wholly mitigated**
- = Significant environmental impacts, cannot be mitigated**
- ? = Uncertain (insufficient information to answer the question at this stage)**

2.11 The appraisal responses are set out in Section 3, with a summary table of the scoring provided at the end.

2.12 In line with the UK Government's stated intention of pursuing the aims of sustainable development in an integrated way, the expectation of the SA should not necessarily be to meet or exceed all the appraisal objectives defined on an individual basis: rather, the results should be considered on balance, with appropriate recommendations made where an enhancement opportunity is identified without giving undue importance to one specific objective. On this basis no weightings have been applied to the appraisal questions, and no attempt has been made to summarise each objective into one overall score.

2.13 Where opportunities have been identified that could improve the current proposed development in response to a particular question, recommendations have been made, as set out in Section 4.

## 3 Appraisal Results

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### Detailed Appraisal Results and Discussions

**1. \*What BREEAM/EcoHomes rating is sought for the proposed buildings? For a building type not covered by BREEAM use the “Offices” scheme as the basis for a bespoke evaluation, or contact BREEAM for further advice.**

3.1 Obtaining a BREEAM rating is not a requirement for this building. There are, however, a number of sustainable design elements surrounding the various BREEAM categories (management, health & wellbeing, transport, energy, materials, waste, land use/ecology and pollution) which are discussed in response to specific questions within this report. It is felt that the design of the facility in accordance with the integrated pollution prevention and control regime together with methods to address any environmental constraints identified in the EIA process and good quality design will leave little opportunity for additional benefits to be achieved through the BREEAM assessment process.

Appraisal score: 0

**2. \*What proportion (by mass) of building materials used in the construction of the public realm and infrastructure will be specified as low environmental impact?**

3.2 It is not possible to provide a proportion by building mass at this stage of design. However, examples of the architects globally responsible design endeavours are to specify the following:

- All steelwork to be used to have a high-recycled content of at least 20-30%.
- All structural steel sections and purlins are to be hard stamped / marked to identify section sizes in order to aid identification for re-use.
- Use of a Corus Confidex Sustain external envelope – the entire external envelope is to be carbon neutral by offsetting its impact from cradle to grave.
- Recycled aggregate in construction of concrete elements wherever possible.
- Bedding to block paved areas to use 100% crushed recycled glass in content as Glass-Sand.
- Tarmacadam road base to contain 30% recycled glass as RMC ‘Glassphalt’.
- Minimise waste and material use through economic design and management. All construction waste to be sorted and recycled as applicable.

- Recycled de-sulphurised gypsum (DSG-from power station waste) in internal partitions.
- Non-oil based insulants are to be used throughout such as glass-wool and mineral-wool, which can be recycled.
- Mineral fibre ceiling tiles can be fully recycled and contain 30% recycled product.
- The use of organic and/or low solvent paints to reduced volatile emissions.
- FSC timber (Forestry Stewardship Council) from managed woodlands.
- Use of marmoleum, a natural based floor covering in lieu of PVC flooring materials.
- Recycled yarn carpets.

Appraisal score: +

**3. \*Will the development seek to reduce the likelihood of contributing to a heat island effect through:**

**A. Provision of appropriate shaded green space and tree cover**

3.3 Appropriate shaded green space and tree cover are considered within the landscape architects proposals.

**B. Green roofs and vegetated walls**

3.4 Green roofs and vegetated walls are not considered suitable for this facility, further information is provided in the Design and Access Statement.

**C. Design to enable air-flow throughout the development /D. Passive cooling designed-in / E. Open water and fountains in public spaces**

3.5 This is a predominantly industrial facility heavily focused around the internal process required to generate electricity with limited cooling demand and due to this, these items (usually associated with office/commercial developments) will not be incorporated. However, combustion air will be drawn from the waste receptor hall.

**F. Shaded public spaces and footpaths**

3.6 Footpaths will be shaded where appropriate. Public spaces are not typical to this type of development.

Appraisal score: 0

**4. \*What percentage of the existing buildings on site will be re-used / refurbished?**

3.7 There are no existing buildings on the site which are suitable for the purpose of the SEP.

Appraisal score: 0

**5. \*How much local reclaimed or recycled materials will be used for road construction?**

3.8 Engineering specifications for road construction have been written to accommodate reclaimed or recycled materials if utilised by the contractor.

Appraisal score: +

**6. \*Does the developer have a strategy to use locally sourced materials in the development (within 35 – 50 miles of the site)?**

3.9 Locally sourced materials will be considered where they are economically viable.

Appraisal score:+

**7. \*Does the developer have a strategy to use low environmental impact and/or recycled materials in the water and sewerage systems infrastructure?**

3.10 Locally sourced materials will be considered where they are economically viable.

Appraisal score:+

**8. Is the proposal of a high standard of design which complements the surrounding area?**

3.11 The project architects have issued a design commentary which is summarised below;

- The natural colour scheme within the landscape band consists of deep red brick colours and deep greens and browns - basically natural colours, which should be replicated on views from the Isle of Sheppey to reduce its impact, whilst providing a building of interest to the views from the Swale and the A249 providing something of a landmark compatible with adjacent uses rather than attempting to hide the structure.
- The intention is to retain the proposed footprint and incorporate the design around the functional facility, maintaining the original processes, massing and forms. The existing facility is by its nature extremely industrial with little architectural merit where the form certainly follows function. This approach has been retained in this scheme, where the functional working heights and mass of the structure have been retained to prevent any unwanted impact on the environment. The existing structures immediately adjacent to the proposal are approximately 25metres high, whilst the height of the proposal adjacent to the existing structures is approximately 43metres towards the Swale.

- With this in mind and in an attempt to reduce the visual height of the facility whilst providing continuity in what is a rather fragmented building composed of many facets, the concept to physically wrap the basic functional form of the building with a band of horizontal cladding panels is proposed. The band will give a connection to all aspects of the building from all elevations with the focus being on this feature whilst the large elements being provided in more neutral colours to blend in with their surroundings. These shall be punctuated by the external vertical circulation shafts penetrating this band in several locations and physically wrapping around the building, giving a physical reflection of the separation of activity within, whilst providing a functional and interesting architectural feature to the Swale and the A249. This approach would be amended with respect to views to the Isle, with a more sympathetic pallet of materials and colour used to reduce the visual impact and blend in with the landscape on the horizon.

Appraisal score: +

**9. Does the building re-use any existing structures?**

3.12 There are no suitable structures on site which could be reused for the proposed use.

Appraisal score: 0

**10. Has whole life costing been used in the design of the facility?**

3.13 Whole life costing has not been used in the design of this facility though the facility is sustainable in its nature through the service it will provide.

Appraisal score: 0

**11. Does the development affect any listed buildings or area of high Townscape Value?**

3.14 The development does not affect any listed buildings or areas of high Townscape Value

Appraisal score: 0

**12. \*Will a waste management/minimisation scheme be implemented by the developer when undertaking construction of the development?**

3.15 Since April 2008 it has been mandatory for development projects over £300,000 to produce a Site Waste Management Plan.

Appraisal score: +

**13. \*Will site heating/cooling/power/water/sewage and communications infrastructure running through the public realm be designed for easy access and allow for future expansion of services?**

3.16 This will be subject to detailed design by the mechanical and electrical engineers but is considered good practice.

Appraisal score: +

**14. How does the development link with other green infrastructure?**

3.17 The development is primarily to support the functioning of the St Regis operations at Kemsley and is not therefore public waste infrastructure. However, the waste source will link in the existing green infrastructure in the region which provides the raw material to produce the fuel. St Regis is a major recycler of paper. Should St Regis close then reject paper will be disposed of at landfill.

Appraisal score: +

**15. \*How can the site be best characterised? A. Contaminated land – remediated or awaiting remediation B. Brownfield – derelict urban land. C. Undeveloped – includes residential gardens. D. Other: including brownfield – rural land, designated open space, designated sports pitches or recreation land, green belt, high quality agricultural land, land designated as of ecological importance, land with workable or potentially workable minerals, land at moderate or significant risk of flooding (Environment Agency Flood Zones 2 & 3 in England)**

3.18 Current land use on the site comprises an area of marsh land, an area of stockpiled material and a contractor lay-down area associated with the development of the existing warehouse, and Combine Heat Power plant. A significant volume of stockpiled material is present on the western parts of the site, towards the existing Kemsley Mill. This mosaic of hardstanding, grassland, scrub, ruderal and bare ground aligns closest with the description of land type B.

Appraisal score: +

**16. \*How much of the development site will be previously developed or brownfield land which will be brought back into use by this development?**

3.19 The proposal retains 0.47 ha of habitat, losing 6.47 ha of that 1.98 ha will be created as receptor habitat some 4.49 ha will be brought back into development.

Appraisal score: 0

**17. Is the development to be on contaminated land? If so, do the development proposals deal with this adequately in terms of remediation?**

3.19 An initial Phase II intrusive site investigation has been completed in order to collect baseline soil and groundwater data across the proposed development site. The investigation has confirmed that there are shallow sources of contamination in both soils and groundwaters at the site. Whilst these are not deemed to pose a significant risk based on the continued or proposed development proposals further investigation and quantitative risk assessment has been recommended and will be undertaken as the project progresses.

Appraisal score: +

**18. Has the developer considered whether there are source-pathway-receptor (SPR) linkages both to the site and from the site and what action is required to break any current linkages or prevent any future ones? Has the risk of contamination been adequately addressed?**

3.20 The Phase II has considered the SPR linkages, further works have been recommended to delineate areas of concern, collect additional data and thereafter quantitatively assess the risk posed to construction workers, future site users and controlled waters.

Appraisal score: +

**19. Does the development take into account potential instability of land? If the land is unstable does the assessment cover issues in PPG14?**

3.21 A preliminary geotechnical assessment has been undertaken, in addition further works are proposed in order to inform the overall development design.

Appraisal score: +

**20. Is the development in an appropriate location for its industrial purpose; are there any perceived or actual conflicts in terms of land use? Are adjacent land uses compatible?**

3.22 The site is allocated as a site for employment within the Swale Borough Local Plan. The site complies with policies of the development plan, and PPS10 identifies industrial sites as being suitable in principle for waste management facilities. The site is therefore an appropriate location in land use terms.

Appraisal score: +

**21. Does the development prejudice the development of other sites in any way - through its nature and scale, access and infrastructure linkage?**

3.23 The proposed development will incorporate through its design measures to safeguard all neighbouring land uses.

Appraisal score: 0

**22. What is the planning status / local development status of the land on which the development is planned?**

3.24 The site is allocated for employment.

Appraisal score: 0

**23. Will the development affect any agricultural land uses nearby?**

3.25 The development will have no effect on any agricultural land-uses nearby.

Appraisal score: 0

**24. Is the development a positive contribution to the rural-urban fringe?**

3.26 At present the site is a vacant, however it is allocated as an existing committed employment site. It's development would bring the vacant site back into beneficial use.

Appraisal score: ++

**25. Are any rights of way affected?**

3.27 The proposed development does not impact on any existing rights of way.

Appraisal score: 0

**26. Does the development represent suburban intensification which may assist wider planning objectives in the area?**

3.28 This question is not applicable to the development.

Appraisal score: N/A

**27. Does the development contribute to Sittingbourne as a market town?**

3.29 The proposed development will provide the infrastructure to help manage waste arisings in the County and as such will improve the waste management infrastructure in the region. This is an indirect positive benefit for the whole county. There is economic benefit through the safeguarding of the paper mill's viability.

Appraisal score: +



**28. Is the development in line with policies relating specifically to the Thames Gateway Planning Area?**

3.30 The specific policies of the South East Plan have been taken into account in the production of individual questions within this sustainability appraisal.

Appraisal score: +

**29. Does the development prejudice the separation of any settlements?**

3.31 The site will not cause existing settlements to merge.

Appraisal score: 0

**30. Is the development already on a site identified as having potential for an SEP in Saved Policy W11 of the Local Waste Plan (1998) now incorporated into the Kent minerals and Waste Development Scheme (Second Review, 2009)?**

3.32 Policy W11 of the Waste Local Plan highlights the Site (The Swale at Kemsley) as having the potential for a waste to energy plant.

Appraisal score: +

**31. Does the development promote sustainable waste management in line with the waste hierarchy (reduce, reuse recycle, recover)? Does the development use only fuel derived from residual waste?**

3.33 The Sustainable Energy Plant proposal promotes waste management in a sustainable manner. The development only uses fuel derived from residual waste.

Appraisal score: + +

**32. Does the development encourage an integrated approach to waste management?**

3.34 The energy plant will provide management of pre treated Commercial and Industrial (C&I) and Municipal Solid Waste (MSW) and solid recovered fuel (SRF).

Appraisal score: +

**33. Does the development achieve better integration between municipal and non municipal waste.**

3.35 Please see answer to question 32.

Appraisal score: +

**34. Does the development represent a long term investment in waste infrastructure and is the maximum environmental benefit achieved from the investment?**

3.36 The development represents a significant long term investment in waste infrastructure in the county. The projects lifetime is sufficient to warrant considerable investment from the client in its development.

Appraisal score: +

**35. How will any litter arising from the development be controlled?**

3.37 It is not anticipated that any significant amount of litter would arise from the operation of the sustainable energy plant and any that did would be dealt with as an operational management issue and covered under suitable operational controls.

Appraisal score: 0

**36. Does the development promote regional and sub regional sufficiency where pragmatic in terms of waste management capacity. On what basis does the development treat waste from London?**

3.38 The pre treated waste will be principally sourced from within Kent, London and the South East.

Appraisal score: +

**37. How is the development integrated with other waste management practices in the local area?**

3.39 The development is for the use of a specific industrial facility and is integrated within the site processes ongoing at Kemsley..

Appraisal score: +

**38. What is the contribution of the facility to meeting statutory waste targets?**

3.40 Kemsley Paper Mill is a commercial operation and not linked to the performance of a waste contract. However, the development holds the opportunity to reduce the amount of waste potentially going to landfill, so meeting statutory waste targets.

Appraisal score: +

**39. How much of the waste to be used by the facility would go to landfill without the development going ahead?**

3.41 Were the pre treated waste not to be used, it is assumed to go to landfill.

Appraisal score: +

**40. Does the use of waste at this site discourage recycling and composting?**

3.42 The development is powered solely by pre treated C&I, MSW and SRF wastes. All the wastes have been subject to recycling.

Appraisal score: +

**41. Does the development represent a cost effective way to treat waste?**

3.43 The development also represents security of fuel supply into the future for St. Regis and will provide a cost effective means of treating waste.

Appraisal score: +

**42. Does the development produce or use any PFA?**

3.44 PFA will be produced by the facility. There are potential uses for PFA within the construction industry which avoid the use of virgin aggregate within concrete.

Appraisal score: +

**43. Does the development have appropriate controls on leachate?**

3.45 Yes, (Best Available Technology) BAT will be employed for storage and handling of materials which could give rise to leachate.

Appraisal score: +

**44. \*How will the development meet the required water demands placed upon the site?**

3.46 The processes used within the proposed facility are not water intensive.

Appraisal score: 0

**45. Does the development have a detrimental impact upon ground water storage capacity?**

3.47 The very nature of the proposed development will effectively cap the site which will directly impact the potential storage capacity of the development subsurface area.

Appraisal score: -

**46. Does the development protect and improve water quality and reduce the risk of pollution, especially to vulnerable groundwater?**

3.48 The development will cap the majority of the development site area. This will, over the longer term, aid in limiting the mobilisation of residual contaminants within shallow made ground across the site area into the underlying perched groundwater. Based on the proposals we would anticipate seeing a longer term betterment in groundwater quality. Surface water drainage associated with the proposed development will be collected by the site drainage scheme, thereafter it will be treated and discharged.

Appraisal score: -

**47. Does the development affect any nearby water resources in any way - does it reduce / contribute or have a neutral effect on sustainable abstraction from watercourses / aquifers?**

3.49 Any effect is considered minimal on aquifers / abstraction with the immediate surrounding area.

Appraisal score: 0

**48. How does the development limit CO<sub>2</sub> emission - through both its operation as a facility and as a built structure?**

3.50 The development limits CO<sub>2</sub> emissions as it burns waste (which cannot be recovered through processes higher up the waste hierarchy) in a controlled environment, taking power from the process. This does still produce CO<sub>2</sub>, but in a controlled scenario. Were the waste to go to landfill would also produce more harmful greenhouse gases such as methane in anaerobic landfill conditions.

Appraisal score: +

**49. Has an assessment of the CO<sub>2</sub> impacts of the development been made in comparison to alternative scenarios?**

3.51 An operational CO<sub>2</sub> assessment is being undertaken which compares the existing situation at the Kemsley Paper Mill (gas fired CHP with a paper sludge and plastic convertor) with the proposed situation (with the contribution of the proposed SEP). The results of the assessment will form part of the Environmental Permit Application.

Appraisal score: +

**50. Is the building / development designed to cope with future changes to climate e.g. more extreme weather events and potential subsidence? Has adaptation been adequately considered?**

3.52 The drainage design philosophy will highlight how the drainage design copes with future changes to climate paying particular reference to potential flooding and more frequent and heavy storms. The engineer's foundation design will take in to consideration the existing ground conditions and be designed in accordance with relevant British standard and all known loadings.

Appraisal score: +

**51. \*What steps will the developer take to prepare an energy strategy for the proposed development to optimise the energy consumption of the site?**

3.53 The development has an energy strategy as its core vision, being a Sustainable Energy Plant. The process housed in within the facility will be monitored closely as a management strategy to optimise the energy production and utilisation.

Appraisal score: +

**52. \*What % of total site energy demand will be produced from an on-site renewable scheme (e.g. wind, solar, hydro, photovoltaic bank, CHP operating on biomass or waste)?**

3.54 The Kemsley Papermill operations have a requirement for both steam and electricity. This is currently provided from a gas fired CHP plant producing electricity and steam and a paper sludge combustor producing steam only. The new proposals will incorporate a waste fired CHP plant producing electricity and steam and therefore reduce the demand for power and steam from the gas fired CHP plant (the paper sludge combustor will remain operating steam at the same load).

3.55 In normal operating mode the SEP will provide around 33% of the mills heat demand, but can provide 100% of its heat requirements.

Appraisal score: +

**53. \*To what extent will the development take into account the hierarchy for feasible heating systems**

3.56 The detailed post planning mechanical and electrical design of the building will assess any relevant heating systems according to current best practice.

Appraisal score: +

**54. \*What percentage of buildings will be designed for and to be equipped with solar water heating and/or photovoltaic cells?**

3.57 As the sustainable energy plant will be self sufficient in terms of energy and on site renewables of this nature will not be included.

Appraisal score: 0

**55. \*What percentage of the development not intended to be fitted with active solar devices such as photovoltaic and solar hot water heating by the developer will be designed to allow future installation of these technologies by occupiers?**

3.58 As the sustainable energy plant will be self sufficient in terms of energy it is considered unlikely at this stage that on site renewables of this nature will be included now or in the future, so no designation for this purpose is considered necessary.

Appraisal score: 0

**56. \*Will the developer make site wide provision for an energy infrastructure that allows renewable energy to be sustained on site?**

3.59 See answer to question 54.

Appraisal score: 0

**57. \*Will the site be smart metered, showing site occupiers net energy use, quantified over separate time periods?**

3.60 Appropriate metering will be in place in order to monitor the function of the sustainable energy plant and is potentially to be a condition of an environmental permit. The SEP will provide Good Quality CHP

Appraisal score: ?

**58. \*How much of the street lighting will be energy efficient with limited upward light transmission?**

3.61 This is a consideration for the detailed design stage. It would be consistent with best practice for this to be implemented.

Appraisal score: +

**59. Will it help to minimise energy usage and encourage energy efficiency? \* Have energy efficiency measures been incorporated into the design proposals including siting, design, layout and orientation?**

3.62 Energy efficiency measures have been built into design of the proposals.

3.63 Overall the proposals will provide increased fossil fuel efficiency to be achieved by generating energy from a fuel which is partially biogenic.

Appraisal score: 0

**60. Does the development make use of opportunities for decentralised or low carbon energy?**

3.64 An overarching aim of the plant is to produce energy from an alternative source to fossil fuels.

Appraisal score: +

**61. Does the development use an advanced thermal conversion technology?**

3.65 The SEP will employ modern moving grate system for thermal treatment of the waste. This technology has been selected as the most appropriate for maximum energy recovery.

Appraisal score: +

**62. Does the development incorporate, wherever possible, CHP generation and distribution?**

3.66 The SEP will include CHP generation. In addition there is a gas fired CHP plant, already operational at the paper mill site. A proportion of electrical energy will also be available to the grid. The plant will achieve Good Quality CHP status.

Appraisal score: +

**63. What contribution does the development make to renewable energy targets, both for the development in question, and locally?**

3.67 The development will have the capacity to produce up to 48.5MW of electricity from a renewable source for use on site. The reliance on the existing gas fired CHP will be reduced.

Appraisal score: +

**64. Is energy generated to be available to the grid / distribution network. If so, is a suitable connection available?**

3.68 The proposed SEP and gas fired CHP plant will both generate electricity and steam. The combined amount of electricity produced by these plants exceed the papermill demand (and internal parasitic load) therefore electricity will be available for export to the grid. A grid connection is available to support this.

Appraisal score: ++

**65. \*Will the development be within an existing public transport corridor?**

3.69 The development is not within an existing public transport corridor although a bus stop providing regular services into Sittingbourne is located to the west of the existing Kemsley Paper Mill at the eastern end of Ridham Avenue.

Appraisal score: 0

**66. \*Will the developer install infrastructure in homes and commercial/industrial buildings which will allow the use of virtual communications as an alternative to transport?**

3.70 Due to the low level of staffing required at the facility this will not be required. Kent County Council Highways Authority has confirmed that there is no requirement for a Travel Plan associated with this development

Appraisal score: 0

**67. \*How will car parking standards compare with local authority requirements?**

3.71 The Local Authority does not have parking standards for this type of development. It is expected that the level of parking will be discussed and agreed with the Highway Authority as part of the consultation process.

Appraisal score: 0

**68. \*Will provision be made for off-road HGV/delivery vehicle loading space for retail, commercial and industrial units?**

3.72 The site will be designed to allow the safe manoeuvring and parking of delivery HGVs within the site.

Appraisal score: 0

**69. \*Will there be a network of safe bike routes to local facilities near to and overlooked by, roads and pavements?**



3.73 Swale Way and Barge Way are provided with adjacent modern, standard shared pedestrian/cycle paths that can be used to access the site. The link from Ridham Avenue is also retained for use by cyclists and pedestrians despite being closed to vehicular traffic to the west of the existing Kemsley Paper Mill.

Appraisal score: 0

**70. \*What provision will be made for secure bicycle storage at local facilities and at transport nodes?**

3.74 Secure bicycle storage will be provided.

Appraisal score: +

**71. \*To encourage more frequent use of public transport during the entire year, are waiting areas which are considered safe and out of the weather provided?**

3.75 Only twelve staff are anticipated to be on site at any one time. An assessment has been made of the existing public transport facilities as part of the Transportation Chapter of the Environmental Statement. Bus shelters are available at Kemsley Mill. No additional facilities are proposed.

Appraisal score: 0

**72. \*Will there be a traffic management plan in place which encourages the safe passage of vehicles through the development at an appropriate speed and without rat runs? Note this could include passive design measures (e.g. Road narrowing, surface treatments etc).**

3.76 There is no risk of rat-runs associated with the proposed development. The design of the site will minimise the conflict between HGV movements and pedestrians/cyclists. Further details will be provided at a detailed design stage.

Appraisal score: 0

**73. Will it help to reduce the distances people have to travel on a regular basis?\* (take 'people' as meaning relevant persons)**

3.77 The site is located within walking and cycling distance of Kemsley and parts of Sittingbourne.

Appraisal score: +

**74. Does the development make use, where practicable of modes of transport other than road e.g. rail, river?**

3.78 Consideration is being given to the feasibility and economic viability of the use of both barge and rail transport for the delivery of fuel to the facility via Ridham Sea Terminals.

Appraisal score: 0

**75. Will a travel plan be produced for the development?**

3.79 Kent County Council Highways Authority has confirmed that there is no requirement for a Travel Plan associated with this development due to the low level of staffing.

Appraisal score: 0

**76. Will the traffic generated be detrimental to road safety for safe pedestrian and cycle movements?**

3.80 A review of personal injury accidents data on the surrounding highway network indicates no deficiencies that might be exacerbated as a result of the development. The development is accessed from Swale Way, designed to high safety standards and provided with dedicated pedestrian and cycle facilities.

Appraisal score: 0

**77. Is the existing road capacity adequate for the development - is the access to the site suitable - are any improvements required?**

3.81 Discussions are ongoing with Kent Highway Authority and the Highways Agency to establish the transport impact of the proposals.

Appraisal score: 0

**78. For staff and users of the building is the development accessible by sustainable means of transport at appropriate times (especially if shift work is involved)**

3.82 The development site is accessible on foot, by bicycle and by bus. Ongoing discussions with the Highway Authority will establish whether any further measures are required to further enhance this accessibility, particularly in relation to shift working.

Appraisal score: 0/

**79. Does the development affect any rural lanes - physically or with increased traffic levels which could harm their character?**

3.83 The development does not affect any rural lanes.

Appraisal score: 0

**80. Has the development made an assessment of emissions to air including dust, smoke, ash or grit and are adequate mitigation measures employed?**

3.84 An assessment of the air quality effects associated with the construction and operation of the proposed Facility at Kemsley Paper Mill has been undertaken.

3.85 During the construction phase, dust nuisance effects and emissions from plant associated with on-site construction and the potential effects associated with emissions from construction vehicles on the local road network have been considered, using the London Best Practice Guide. Mitigation methods applicable to the level of risk have been included.

3.86 Emissions from the Facility have been assessed through detailed dispersion modelling using best practice approaches. The results of stack height determination modelling show that a stack height of 90 m is the optimum height required for the dispersion of pollutants. The assessment has been undertaken based on a number of worst-case assumptions. This is likely to result in an over-estimate of the contributions that will arise in practice from the Facility.

3.87 The air quality effects associated with changes in traffic flow characteristics on the local road network during operation have been assessed using the Highways Agency's Design Manual for Roads and Bridges.

3.88 Appropriate mitigation measures will be included within the Environmental Permit.

Appraisal score: 0

**81. Does the development give rise to other sources of disturbance from odour /fumes? If so, how are these effects mitigated?**

3.89 Odour has not been assessed as odour, dust and other environmental impacts in the Plant Tipping Hall are controlled in accordance with the requirements of the Environment Agency. Odours from the facility and tipping hall are effectively managed through the generation of negative pressure within the facility created by the air intake fans to the combustion process. These will continuously draw air from within the building for use within the combustion process, hereby consuming any odours arising.

3.90 Doors will be fitted with automatic door closures, where required.

3.91 The likely incidence and dimensions of visible plumes from the proposed stack have been predicted using the ADMS 4.1 Plume Visibility Module. Modelling has been undertaken using five years of hourly sequential meteorological data. Based on the above results, the predicted significance of the effect of plume visibility is 'low' with reference to the EA criteria and no mitigation is required.

Appraisal score: 0

**82. Is the development in line with both the relevant objectives from the National Air Quality Strategy and the relevant local Air Quality Strategy. Is Air Quality a material consideration for this development?**

3.92 The results of dispersion modelling indicate that predicted contributions and resultant environmental concentrations of all pollutants considered is of 'negligible' to 'slight adverse' significance. The air quality effects associated with operational traffic are deemed to be negligible. Stack emissions from the existing Kemsley Paper Mill have been modelled to determine the combined effect. Pollutant concentrations are expected to be below the relevant criteria, set for the protection of human-health.

Appraisal score: 0

**83. \*What will happen to heritage/archaeologically important features and their settings which could be affected by the development?**

3.93 Heritage/archaeologically important features and their settings which could be affected by the development would be preserved either in situ or by record.

Appraisal score: 0

**84. Has an adequate archaeological assessment taken place and are statutory frameworks for protecting and recording any remains to be followed?**

3.94 An adequate archaeological assessment has taken place and statutory frameworks for protecting and recording any remains are to be followed.

Appraisal score: 0

**85. Have all the cumulative impacts of the development been appropriately addressed?**

3.95 Each chapter of the Environmental Statement has addressed the cumulative impacts associated with the development and the following other developments. No significant impacts are anticipated to result from the proposed developments.

Appraisal score: 0

**86. \*Will a full ecological survey be carried out, by a qualified ecologist, to examine habitats in and around the site and migration routes across the site?**

3.96 A Full Phase 1 Habitat and protected species scoping, reptiles, invertebrates, breeding birds, intertidal birds and water vole surveys has been undertaken by ecologists with suitable professional standing.

Appraisal score: +

**87. \*Will there be an increase in important or sensitive habitats identified in the local biodiversity action plan (LBAP), either by area or increased ecological value (as assessed by an ecologist) or support for a species identified in the Biodiversity Action Plan?**

3.97 The creation of the attenuation ponds will provide a substantial new area of reedbed, a UK and Kent Biodiversity Action Plan (BAP) habitat.

Appraisal score: +

**88. \*Will any new wildlife corridors be created to link habitats within the site or link to habitats outside the development?**

3.98 Reptile habitat to the north and south of the eastern site boundary will be linked via mitigation land to the east of the site.

Appraisal score: +

**89. \*Has a mixture of locally occurring native trees and shrubs been specified?**

3.99 An appropriate local specification has been provided for within the ecological proposals for the site.

Appraisal score: +

**90. \*What proportion of timber used in the construction of the public realm and infrastructure will be from an independently verified sustainable source?**

3.100 All timber will be specified as being to Forestry Stewardship Council (FSC) and the contractor will be responsible for providing certification from their subcontractors

Appraisal score: +

**91. How will the proposal affect the region's objective to protect, enhance and manage the rich diversity of the natural environment and to enhance and conserve the environmental quality of the region?\***

3.101 All Valued Ecological Receptors (VERs) will be protected during works either through sensitive timing of works (piling, for example), or via a suitable translocation programme. Much of the site is currently of low quality for wildlife. The inclusion of a substantial area of reedbed within the attenuation pond will complement that already present to the north of the site.

Appraisal score: +

**92. Does the development conserve, enhance or restore ecological diversity and support its role in contributing to a high quality environment?**

3.102 The development both conserves and enhances the ecological diversity on site. All VERs on site and in the surrounding area will be suitably protected and the provision of new reedbed habitat and suitably managed species rich rough grassland will enhance the site.

Appraisal score: +

**93. Will it help to protect and improve the management the region's biodiversity (i.e. habitats or species)? \* Will there be no net loss of priority habitats and species and no damage to EU designated Natura 2000 sites?**

3.103 There will be no net loss to priority habitats or species and no damage/disturbance to any Natura 2000 site.

Appraisal score: 0

**94. Does the development help create any new areas of woodland with priority for any native species?**

3.104 There is some tree planting, but no woodland. Woodland is not a characteristic habitat of this part of Kent.

Appraisal score: 0

**95. Are all nature conservation features retained unless avoidable? This includes mature trees, hedgerows, shrub areas, water features, geological features and other Biodiversity Action Plan priority habitats and species.**

3.105 There will be no net loss of Biodiversity Action Plan (BAP) habitats or other features of ecological importance, other than a decrease in habitat available for reptiles. However, this will be mitigated via the creation of better quality habitat.

Appraisal score: +

**96. Does the development compromise the long term retention of any trees / groups of trees, woodland providing amenity and in particular any trees with tree preservation orders?**

3.106 There are no trees on site to retain.

Appraisal score: 0

**97. Is all relevant biodiversity legislation complied with e.g. the Habitats Directive?**

3.107 All relevant legislation is complied with, for example:

- receptor site for translocation of reptiles to avoid killing/injuring.
- vegetation clearance outside breeding bird season.

Appraisal score: +

**98. Are any ANOB's affected?**

3.108 The site is not located within an AONB. The EIA will set out any indirect impacts but these are not anticipated to be significantly adverse.

Appraisal score: 0

**99. Is the development to have an adverse effect on any of the following; local nature reserve, ancient woodland, a site of nature conservation interest or a regionally important geological / geomorphological site?**

3.109 There will be no adverse impact on any site of ecological importance.

Appraisal score: +

**100. Is planting made up of native (regional or local) plant species for soft and hard landscaping, surface and boundary treatments?**

3.110 Native species have been specified throughout.

Appraisal score: +

**101. \*Is the development sited and designed in accordance with the sequential test set out in PPS 25?**

3.111 As part of the Environmental statement a flood risk assessment has been undertaken in line with PPS25. The site is located in Zone 1.

Appraisal score: 0

**102. \*Following a comprehensive Flood Risk Assessment, what measures have been taken to reduce the contribution the development may make to flash flooding?**

3.112 Runoff from site is contained in perimeter ditches for storage at high tidal levels for subsequent discharge at lower tide levels.

Appraisal score: +

**103. \*What percentage of the total roof area in the development is designed to allow the harvesting of rain water for re-use and/or is covered by green roofs?**

3.113 Rainwater collected from the roof area of the development is to be re-used for fire water, the flushing of toilets and landscape irrigation.

Appraisal score: +

**104. \*Will the development have provision for community management of facilities, open space, SUDS, grey water schemes etc?**

3.114 The scheme incorporates the provision of SUDS including the perimeter ditches and collection of rainwater which also minimises run off. Community management of the facilities is unlikely to be appropriate given the nature of the facility.

Appraisal score: +

**105. Does the development lie within an undefended area at risk of flooding?**

3.115 The development constitutes land raise on coastal floodplain (undefended).

Appraisal score: 0

**106. Does the development create or exacerbate flooding elsewhere for example by impeding the flow of floodwater?**

3.116 The development is considered to have a neutral impact because of its coastal location.

Appraisal score: 0

**107. Does the development result in the loss of natural floodplain?**

3.117 There will be minor loss of natural floodplain as a result of the development.

Appraisal score: 0

**108. Does the development interfere with natural coastal processes if applicable?**

3.118 There will be no interference with coastal processes as a result of the development.

Appraisal score: 0

**109. Does the development impede access to a watercourse for maintenance or flood defence purposes?**

3.119 The development will not cause any inference to access to watercourses for this purpose.

Appraisal score: 0

**110. Are any proposals for flood risk management adequately funded over the developments lifetime?**

3.120 Flood risk management will be incorporated in the surface water management plan to ensure issues and costs are addressed.

Appraisal score: 0



**111. Does the development incorporate the use of SUDS, and where necessary flood resilience measures?**

3.121 In addition to the SUDS measures already stated in response to question 104, storage ditches will be vegetated and site is raised above tidal flood plain.

Appraisal score: +

**112. Does the development conserve, enhance or restore geological diversity?**

3.122 The proposed development in the main can be seen as a land raise which will conserve geological diversity.

Appraisal score: +

**113. \*Will the security lighting strategy be designed to minimise light pollution and disruption to neighbours?**

3.123 This design aim will be satisfied by the mechanical and electrical engineers at a detailed design stage.

Appraisal score: +

**114. \*Will the site be designed to minimise the impact of noise from external sources?**

3.124 The development will be designed to include appropriate mitigation to external sources, if necessary, to ensure that significant noise effects on the surrounding environment will not be expected to occur.

Appraisal score: 0

**115. Does the development take into account noise intrusion and has an assessment been made of its character as well as its level? Is the development noise sensitive itself?**

3.125 The assessment methodology has been based upon BS 4142, which includes consideration of the character (tones, bangs, clatters) of the noise emissions in addition to the magnitude and the baseline noise environment at receptors. The development will not be noise sensitive.

Appraisal score: 0

**116. Have appropriate sources of noise control been considered - engineering / layout /administrative arrangements?**

3.126 The development will be designed to include appropriate mitigation, if necessary, to ensure that significant noise effects on the surrounding environment will not be expected to occur.

Appraisal score: 0

**117. Does the development give rise to other sources of disturbance from vibration? If so, how are these effects mitigated?**

3.127 Vibration within the facility will be controlled at source such that vibration sensitive processes and equipment within the facility (such as the turbine) will not be affected. Vibration emissions from such facilities are usually insignificant outside the building footprint.

Appraisal score: 0

**118. \*If there are any public or private surface or groundwater abstractions on or close to the site (within 2 km), are pollution prevention measures being installed to ensure that water quality is not adversely affected during and after development.**

3.128 Current knowledge indicates there are no public or private surface or groundwater supplies within 2km. However, pollution prevention measures are to be installed to ensure that water quality is not adversely affected during and after development.

Appraisal score: 0

**119. \*Will a social impact assessment be carried out to examine the impact of the development on the existing community?**

3.129 A socioeconomic impact assessment has been carried out as part of the Environmental Impact Assessment Process and can be seen in Chapter 14 of the Environmental Statement. It is concluded that the proposed development will have beneficial effects on the socioeconomic structures of the Catchment Area and the Region and as such, there is no requirement for any mitigation measures.

Appraisal score: +

**120. \*Has the community been actively involved in the development proposal:**

3.130 A programme of consultation has taken place with an exhibition on the 2nd/3rd July 2009. A further two day public exhibition took place during the 26<sup>th</sup> and 27<sup>th</sup> of November 2009 at Kemsley Village Hall and 13<sup>th</sup> January 2010 at Iwade village hall.

Appraisal score: +

**121. \*Have local community stakeholders have been told about the proposal (e.g. public notices and adverts) so that they can comment to the Planning Authority**

3.131 See response to question 120.

Appraisal score: +

**122. \* Have local community stakeholders have been consulted for opinions on a pre-prepared scheme (e.g. leaflets and return forms)**

3.132 See response to question 120.

Appraisal score: +

**123. \* Have local community stakeholders have been asked to select their preferred option from a range of schemes and their preferred proposal has been put forward (e.g. through remote surveys or through a public meeting)**

3.133 The community have been involved through an appropriate programme of public consultation described in the response to question 120.

Appraisal score: 0

**124. \*Have local community stakeholders have been involved in the preparation of this proposal (e.g. through workshops or participative processes)**

3.134 The community have been involved through an appropriate programme of public consultation described in the response to question 120.

Appraisal score: 0

**125. Is the design 'inclusive' - is all relevant DDA legislation to be followed?**

3.135 Relevant DDA legislation will be followed to the office accommodation areas. The client will need to provide an individual access strategy relating to the safe access and operation of the internal process.

Appraisal score: +

**126. Has stakeholder consultation taken place?**

3.136 Stakeholder consultation has taken place in line with EIA procedures.

Appraisal score: +

**127. Does the development provide or contribute to any local community services or facilities?**

3.137 The development will contribute to St Regis as a company and supports the local economy, which includes community services / facilities.

Appraisal score: 0/+

**128. Does the development impact on a conservation area or any of the regions nationally and internationally designated cultural assets?**

3.138 The development does not impact on a conservation area or any of the regions nationally and internationally designated cultural assets

Appraisal score: 0

**129. Does the site itself have a historic use, of national or local interest? Have English Heritage been consulted (if appropriate)?**

3.139 The site itself does not have a historic use, of national or local interest. English Heritage have been consulted as part of the EIA process.

Appraisal score: 0

**130. Will it help to protect or enhance existing features of the historic built environment? \* including listed buildings, World Heritage Sites, Historic Parks and Gardens, Historic Battlefields, and the wider historic landscape. Do the relevant assessments make an assessment of how change is absorbed?**

3.140 The proposed development would have no effect on any of these features.

Appraisal score: 0

**131. Does the site itself have any historical importance (separate to its archaeological status)?**

3.141 The site itself does not have any historical importance (separate to its archaeological status).

Appraisal score: 0

**132. Is any public art included in the development?**

3.142 The development is primarily an industrial facility and this is not planned to include any public art.

Appraisal score: 0

**133. \*Will new business space increase/maintain the viability of existing businesses?**

3.143 The facility is not intended to provide business space but to provide energy to an existing business which will aid in maintaining its future viability.

Appraisal score: +

**134. \*Will the development be designed to suit the needs of prioritised business sectors as identified in the RES?**

3.144 Priorities of the RES are to accelerate business start-ups, enable existing businesses to adapt, prosper and grow through innovation and to encourage international business activity. The Proposed development will play a part in realising all three of these objectives.

Appraisal score: +

**135. \*Will the development be designed to attract inward investment?**

3.145 Substantial development will be involved and will help maintain St Regis competitiveness within the market. The exact effects on investment cannot be quantified but the proposals will contribute to the success of a local company and therefore region, potentially increasing attractiveness to investors.

Appraisal score: +

**136. \*Is new business space being developed close to current business centres to enable bulk purchasing, shared costs e.g. landscaping, shared Green Transport plan, facilities etc?**

3.146 The majority of the surrounding area is part of a proposed employment allocation. In theory, there would be the possibility of sharing costs.

Appraisal score: ?

**137. \*Will flexibility be designed into commercial units to provide adaptability to changing market needs?**

3.147 This is not applicable to this site.

Appraisal score: 0

**138. Does the development help promote a market for recycled and recovered materials / products / by-products?**

3.148 Through the developments use of pre treated waste including SRF, the Sustainable Energy Plant will help support this market.

Appraisal score: +

**139. Could the development adversely affect local tourism?**

3.149 The proposed development is not considered to have any effect local tourism.

Appraisal score: 0

**140. Does the development contribute to economic growth and competitiveness in the region?**

3.150 The development will secure energy in the region, making it less dependant on others, thereby contributing to the regions competitiveness. In addition to the growth associated with jobs and investment as part of the proposed development, this secure energy supply will also provide a foundation upon which to grow the economy. The development will enable St Regis to be competitive within the market to the benefit of the local economy.

Appraisal score: +

**141. How will the development change the perception of waste to regard it is a resource and in the policy shift from disposal to processing**

3.151 The development will contribute to waste minimisation within the region. Public Exhibitions will help promote the disposal of waste further up the waste hierarchy. The energy produced will be seen as a resource.

Appraisal score: +

**142. How will the development improve the quality and availability of information available on waste treatment in the local area?**

3.152 The development will provide the opportunity for further information to be provided by way of information updates .

Appraisal score: +

**143. How many jobs of what skill level and duration will be created by the local community?**

3.153 It is estimated that up to 500 people will be required during the construction phase. An employment change of this scale is assessed as being of minor benefit

3.154 It is estimated that the proposed development will create 50 full time jobs in the operational phase. Many of these jobs would need particular management and technical skills to ensure the efficient and safe operation of the plant. In addition an average of 100 contractors will be employed for planned shutdowns. However, such skills need not be acquired in the waste industry or in a plant of this nature; suitable personnel could be recruited from industries with similar characteristics. Notwithstanding the clear need for people with appropriate skills, it seems likely that the required labour could be identified without difficulty in the immediate area and from within the town itself. This is especially so given the high proportion of manufacturing jobs in the area and Kemsley and the average distance that people already travel to work.

Appraisal score: +

**144. Does the development offer education which can inform, educate and work towards changing the behaviour of residents, consumers and the wider economy in regards to waste?**

3.155 St Regis and E.ON promote information about the plant and its purpose on the dedicated proposal website. The benefits of the SEP are highlighted to local residents and the wider community.

Appraisal score: 0

**145. What monitoring will be carried out on the development to monitor performance on both the building (e.g. commissioning of building services) and operational performance (other than those conditions to be imposed by the EPR).**

3.156 St. Regis will implement appropriate management systems to monitor the performance of the facility.

Appraisal score: +

**146. Is an EPR being developed? What are the major issues? Is the EPR being submitted at the same time as the planning application?**

3.157 A permit application is being prepared, largely in parallel with the planning application.

Appraisal score: +

**147. Is there sufficient funding in place / commitment to maintain any significant drainage / flooding protection provided by the development?**

3.158 There will be a surface water management plan for site, as part of which maintenance requirements will be identified.

Appraisal score: +

**148. If the development has a known lifespan - is appropriate restoration and aftercare an integral part of the plans?**

3.159 The development does not have a specified lifespan. Appropriate restoration and aftercare would be considered at such time as the development anticipated closure. An average building lifetime is 60 years.

Appraisal score: 0

**149. Are the proposed operating hours acceptable?**

3.160 Permission is sought to enable the SEP to operate continuously 24 hours per day, seven days a week. It will operate continuously throughout the year with the exception of planned shut downs and unplanned maintenance. In respect to the receipt of waste fuel by heavy goods vehicles this will mainly take place between the following hours:

- 0700 and 1800 hours Mondays to Fridays
- 0700 and 1300 hours Saturdays.

3.161 Construction activities will take place between the following times:

- 0700 and 1800 hours Mondays to Fridays
- 0700 and 1300 hours Saturdays.

Appraisal score: 0

**150. \*What is the potential for the development to create additional permanent jobs either through new business or for maintenance of the development?**

3.162 The new plant will require maintenance which may create a demand in the local economy.

Appraisal score: +

**151. \*If the development is part of a publicly funded regeneration scheme, will the contractors engage local labour?**

3.163 N/A the development is privately funded.

Appraisal score: 0

**152. Does the development influence health in the local area / have the potential to reduce health inequalities?**

3.164 As per the requirements of the European Commission EIA and Waste Incineration Directives, the ES and Permitting process will assess potential environmental effects against national and international guidance set to protect community health.

Appraisal score: 0

**153. \*Will a landscaping scheme be drawn up for the site – to include Public Open Space (POS), street scenes, public/private space boundaries and site boundaries, with landscape and ecological assets preserved?**



3.165 Proposals will be produced incorporating hard and soft landscape details. Proposals will include screen planting at an appropriate scale to reduce the impact of the scheme on views gained by sensitive receptors and to help merge the large scale development with adjoining landscape character. The landscape proposals will also seek to provide an attractive working environment for employees. Existing vegetation on site is of very limited landscape value and most will be removed to accommodate development. It's retention is not a priority.

Appraisal score: 0/+

**154. Does the development affect the quality, character or amenity value of the local countryside?**

3.166 Yes, a large scale development adjoining rural/natural landscapes has the potential to affect character, quality and amenity value.

Appraisal score: -

**155. Does the design reinforce local distinctiveness and strengthen the sense of place?**

3.167 Landscape proposals primarily in the form of planting will reflect local distinctiveness through the choice of species. The development is industrial in character and will form an extension of other existing industrial land uses within the townscape context.

Appraisal score: 0

**156. Does the development have the opportunity to positively influence the pattern of local deprivation?**

3.168 Job creation, as discussed in relation to question 143 holds the opportunity to aid a positive socioeconomic effect. Quantification of this effect, however, is not possible at the present time.

Appraisal score: +

**157. \*Will the proposed street network provide a high quality public realm with a pedestrian friendly environment?**

3.169 Vehicular and pedestrian access and circulation will be designed to an appropriate level to function within an energy plant environment.

Appraisal score:+

**158. \*Will development be designed to “Secure By Design” or equivalent standards?**

3.170 The design of the development has been discussed with the planning authority during the design process though Secure by Design standards have not been explicitly considered.

Appraisal score: 0/-

**159. Does the development involve the storage, handling or distribution of explosive, highly flammable, toxic or corrosive materials If so, are these risks adequately mitigated?**

3.171 Depending on reagents used within in abatement plant there is a possibility that corrosive and toxic substances may be used. Appropriate management policies and practices will be in place to provide a safe environment for the storage of these materials.

Appraisal score: ?

**160. Has an assessment been made of the visual intrusion of the development on the townscape / landscape and are appropriate mitigation / enhancement measures proposed?**

3.172 A thorough landscape/townscape and visual impact assessment has been undertaken. Landscape proposals will form an integral element of the scheme and will be assessed as such. Any additional mitigation will be identified.

3.173 The proposed facility will be screened from the local residential properties to the West of the site by the existing paper mill. The new facility will present a very limited impact on view from this area.

3.174 Views to the South of the proposed facility will mainly fall upon industrial units, which again screen views from residential properties further to the South. In addition to this, these are very distant views and the impact of the proposed building on the horizon will be minimal to the both.

3.175 To the North of the site are several small light industrial buildings, and a large Knauf production facility, with the recent addition of the Kemsley Fields distribution park to the North West. Beyond these units runs the A249, which provides the only land route to the Isle of Sheppey for both cars and rail routes. Consideration should be given to views towards this feature.

3.176 Immediately to the East of the site flows the Swale which separates the main land with the Isle of Sheppey, and predominantly large expanses of nature reserves with a high ecological importance to the area. Views to the site from the Isle are critical to the success of the scheme.

3.177 The Isle of Sheppey Sailing Club operate a full programme of sailing around the Isle and surrounding waters from April to November, and as such, views from the Swale approach to the site from both directions would also have to be considered.

3.178 From these initial studies, it became apparent that views from within the nature reserve on the Isle, from the A249 and from the Swale were critical to the scheme, but in different ways. When viewing the site from the nature reserve it became apparent that the landscape in which the existing facility is sited is very deep in colour and context.

Appraisal score: +

**161. Does the development consider Swale Borough Council's guidelines contained in the Council's Landscape Character Assessment Guidelines and Supplementary Planning Document?**

3.179 The baseline landscape character study and subsequent assessment are based on information and guidelines contained within Swale Borough Council's Landscape Character Assessment and Guidelines

Appraisal score: +

**Table 3-1: Summary of Appraisal Scoring by Category.**

Sustainability Appraisal Objective	Category of Impact	Question No.	Question (questions with a * are taken directly from the SEEDA sustainability checklist)	Duration (short / medium / long term / permanent / temporary (where appropriate to provide answer). Note that 'permanent' is considered to cover the lifetime of the facility. Also where impacts are neutral the duration of impact is not relevant.	Appraisal Response
Sustainable Consumption and Production	BREEAM	1	*What BREEAM/EcoHomes rating is sought for the proposed buildings? For a building type not covered by BREEAM use the "Offices" scheme as the basis for a bespoke evaluation, or contact BREEAM for further advice.		0
	Buildings / Built Environment	2	*What proportion (by mass) of building materials used in the construction of the public realm and infrastructure will be specified as low environmental impact?	Long term/permanent	+
		3	*Will the development seek to reduce the likelihood of contributing to a heat island effect through:A. Provision of appropriate shaded green space and tree cover B. Green roofs and vegetated walls C. Design to enable air-flow throughout the development D. Passive cooling designed-in E. Open water and fountains in public spaces F. Shaded public spaces and footpaths		0
		4	*What percentage of the existing buildings on site will be re-used / refurbished?		0
		5	*How much local reclaimed or recycled materials will be used for road construction?	Long term/permanent	+
		6	*Does the developer have a strategy to use locally sourced materials in the development (we would generally expect this to be within 35 – 50 miles of the site)?	Long term/permanent	+
		7	*Does the developer have a strategy to use low environmental impact and/or recycled materials in the water and sewerage systems infrastructure?	Long term/permanent	+
		8	Is the proposal of a high standard of design which complements the surrounding area?	Long term/permanent	+

Sustainability Appraisal Objective	Category of Impact	Question No.	Question (questions with a * are taken directly from the SEEDA sustainability checklist)	Duration (short / medium / long term / permanent / temporary (where appropriate to provide answer). Note that 'permanent' is considered to cover the lifetime of the facility. Also where impacts are neutral the duration of impact is not relevant.	Appraisal Response
		9	Does the building re-use any existing structures?		0
		10	has whole life costing been used in the design of the facility?		0
		11	Does the development affect any listed buildings or area of high Townscape Value?		0
	Construction waste	12	*Will a waste management/minimisation scheme be implemented by the developer when undertaking construction of the development?	Short term	+
	Infrastructure	13	*Will site heating/cooling/power/water/sewage and communications infrastructure running through the public realm be designed for easy access and allow for future expansion of services?	Long term/permanent	+
		14	How does the development link with other green infrastructure?	Long term/permanent	+
	Use of land	15	*How can the site be best characterised? A. Contaminated land – remediated or awaiting remediation B. Brownfield – derelict urban land. C. Undeveloped – includes residential gardens. D. Other: including brownfield – rural land, designated open space, designated sports pitches or recreation land, green belt, high quality agricultural land, land designated as of ecological importance, land with workable or potentially workable minerals, land at moderate or significant risk of flooding (Environment Agency Flood Zones 2 & 3 in England)	Long term/permanent	+
		16	*How much of the development site will be previously developed or brownfield land which will be brought back into use by this development?	Long term/permanent	+
		17	Is the development to be on contaminated land? If so, do the development proposals deal with this adequately in terms of remediation?	Long term/permanent	+
		18	Has the developer considered whether there are source-pathway-receptor linkages both to the site and from the site and what action is required to break any current linkages or prevent any future ones? Has the risk of contamination been adequately addressed?	Long term/permanent	+
		19	Does the development take into account potential instability of land? If the land is unstable does the assessment cover issues in PPG14?	Long term/permanent	+
		20		Long term/permanent	+

Is the development in an appropriate location for its industrial purpose; are there any perceived or actual conflicts in terms of land use? Are adjacent

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			land uses compatible?		
		21	Does the development prejudice the development of other sites in any way - through its nature and scale, access and infrastructure linkage?		0
		22	What is the planning status / local development status of the land on which the development is planned ?		0
		23	Will the development affect any agricultural land uses nearby?		0
		24	Is the development a positive contribution to the rural-urban fringe?	Long term/permanent	++
		25	Are any rights of way affected?		0
		26	Does the development represent suburban intensification which may assist wider planning objectives in the area?		N/A
		27	Does the development contribute to Sittingbourne as a market town?	Long term/permanent	+
		28	Is the development in line with policies relating specifically to the Thames Gateway Planning Area?		+
		29	Does the development prejudice the separation of any settlements?		0
		30	Is the development already on a site identified as having potential for an EfW in Saved Policy W11 of the Local Waste Plan (1998) now incorporated into the Kent minerals and Waste Development Scheme (Second Review, 2009)?	Long term/permanent	+
	Waste management	31	Does the development promote sustainable waste management in line with the waste hierarchy (reduce, reuse recycle, recover)? Does the development use only fuel derived from residual waste?	Long term/permanent	++
	Waste management	32	Does the development encourage an integrated approach to waste management?	Long term/permanent	+
	Waste management	33	Does the development achieve better integration between municipal and non municipal waste.	Long term/permanent	+
	Waste management	34	Does the development represent a long term investment in waste infrastructure and is the maximum environmental benefit achieved from the investment?	Long term/permanent	+
	Waste management	35	How will any litter arising from the development be controlled?		0
	Waste management	36	Does the development promote regional and sub regional sufficiency where pragmatic in terms of waste management capacity. On what basis does the development treat waste from London?	Long term/permanent	+

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		37	How is the development integrated with other waste management practices in the local area?	Long term/permanent	+	
		38	What is the contribution of the facility to meeting statutory waste targets?	Long term/permanent	+	
		39	How much of the waste to be used by the facility would go to landfill without the development going ahead?	Long term/permanent	+	
		40	Does the use of waste at this site discourage recycling and composting?	Long term/permanent	+	
		41	Does the development represent a cost effective way to treat waste?	Long term/permanent	+	
		42	does the development produce or use any PFA?	Long term/ permanent	+	
		43	Does the development have appropriate controls on leachate?	Long term / permanent	+	
	Water resources	44	*How will the development meet the required water demands placed upon the site?		0	
		45	Does the development have a detrimental impact upon ground water storage capacity?	Long term/permanent	-	
		46	Does the development protect and improve water quality and reduce the risk of pollution, especially to vulnerable groundwater?	Long term/permanent	-	
		47	Does the development affect any nearby water resources in any way - does it reduce / contribute or have a neutral effect on sustainable abstraction from watercourses / aquifers?		0	
	Climate Change and Energy	Carbon emissions	48	How does the development limit CO <sub>2</sub> emission - through both its operation as a facility and as a built structure?	Long term/permanent	+
			49	Has an assessment of the CO <sub>2</sub> impacts of the development been made in comparison to alternative scenarios?	Long term/permanent	TBC
		Climate change	50	Is the building / development designed to cope with future changes to climate e.g. more extreme weather events and potential subsidence? Has adaptation been adequately considered?	Long term/permanent	+
Energy efficiency & renewable energy		51	*What steps will the developer take to prepare an energy strategy for the proposed development to optimise the energy consumption of the site?	Long term/permanent	+	
		52	*What % of total site energy demand will be produced from an on-site renewable scheme (e.g. wind, solar, hydro, photovoltaic bank, CHP operating on biomass or waste)?	Long term/permanent	+	
		53	*To what extent will the development take into account the hierarchy for feasible heating systems	Long term/permanent	+	
		54	*What percentage of buildings will be designed for and to be equipped with solar water heating and/or photovoltaic		0	

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			cells?		
		55	*What percentage of the development not intended to be fitted with active solar devices such as photovoltaic and solar hot water heating by the developer will be designed to allow future installation of these technologies by occupiers?		0
		56	*Will the developer make site wide provision for an energy infrastructure that allows renewable energy to be sustained on site?		0
		57	*Will the site be smart metered, showing site occupiers net energy use, quantified over separate time periods?	Long term/permanent	+
		58	*How much of the street lighting will be energy efficient with limited upward light transmission?	Long term/permanent	+
		59	Will it help to minimise energy usage and encourage energy efficiency? * Have energy efficiency measures been incorporated into the design proposals including siting, design, layout and orientation?		0
		60	Does the development make use of opportunities for decentralised or low carbon energy?	Long term/permanent	+
		61	Does the development use an advanced thermal conversion technology?		0
		62	Does the development incorporate, wherever possible, CHP generation and distribution?	Long term/permanent	+
		63	What contribution does the development make to renewable energy targets, both for the development in question, and locally?	Long term/permanent	+
		64	Is energy generated is to be available to the grid / distribution network. If so, is a suitable connection available?	Long term/permanent	++
	Transportation and accessibility	65	*Will the development be within an existing public transport corridor?		0
		66	*Will the developer install infrastructure in homes and commercial/industrial buildings which will allow the use of virtual communications as an alternative to transport?		0
		67	*How will car parking standards compare with local authority requirements?		0
		68	*Will provision be made for off-road HGV/delivery vehicle loading space for retail, commercial and industrial units?		0
		69	*Will there be a network of safe bike routes to local facilities near to and overlooked by, roads and pavements?		0

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		70	*What provision will be made for secure bicycle storage at local facilities and at transport nodes?	Long term/permanent	+
		71	*To encourage more frequent use of public transport during the entire year, are waiting areas which are considered safe and out of the weather provided?		0
		72	*Will there be a traffic management plan in place which encourages the safe passage of vehicles through the development at an appropriate speed and without rat runs? Note this could include passive design measures (e.g. Road narrowing, surface treatments etc).		0
		73	Will it help to reduce the distances people have to travel on a regular basis?* (take 'people' as meaning relevant persons)	Long term / permanent	+
		74	Does the development make use, where practicable of modes of transport other than road e.g. rail, river?	Long term/permanent	?
		75	Will a travel plan be produced for the development?		0
		76	Will the traffic generated be detrimental to road safety for safe pedestrian and cycle movements?		0
		77	Is the existing road capacity adequate for the development - is the access to the site suitable - are any improvements required?	Long term/permanent	?
		78	For staff and users of the building is the development accessible by sustainable means of transport at appropriate times (especially if shift work is involved)		0/?
		79	Does the development affect any rural lanes - physically or with increased traffic levels which could harm their character?		0
natural resources protection and environmental enhancement	Air quality	80	Has the development made an assessment of emissions to air including dust, smoke, ash or grit and are adequate mitigation measures employed?	Long term/permanent	0
		81	Does the development give rise to other sources of disturbance from odour /fumes? If so, how are these effects mitigated?	Long term/permanent	0
		82	Is the development in line with both the relevant objectives from the National Air Quality Strategy and the relevant local Air Quality Strategy. Is Air Quality a material consideration for this development?	Long term/permanent	0
	Archaeology	83	*What will happen to heritage/archaeologically important		0



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			features and their settings which could be affected by the development?		
		84	Has an adequate archaeological assessment taken place and are statutory frameworks for protecting and recording any remains to be followed?		0
	Cumulative impact	85	Have all the cumulative impacts of the development been appropriately addressed?	Long term/permanent	?
	Ecology, biodiversity & conservation	86	*Will a full ecological survey be carried out, by a qualified ecologist, to examine habitats in and around the site and migration routes across the site?	Long term/permanent	+
		87	*Will there be an increase in important or sensitive habitats identified in the local biodiversity action plan (LBAP), either by area or increased ecological value (as assessed by an ecologist) or support for a species identified in the Biodiversity Action Plan?	Long term/permanent	+
		88	*Will any new wildlife corridors be created to link habitats within the site or link to habitats outside the development?	Long term/permanent	+
		89	*Has a mixture of locally occurring native trees and shrubs been specified?	Long term/permanent	+
		90	*What proportion of timber used in the construction of the public realm and infrastructure will be from an independently verified sustainable source?	Short term	+
		91	How will the proposal affect the region's objective to protect, enhance and manage the rich diversity of the natural environment and to enhance and conserve the environmental quality of the region?*	Long term/permanent	+
		92	Does the development conserve, enhance or restore ecological diversity and support its role in contributing to a high quality environment?	Long term/permanent	+
		93	Will it help to protect and improve the management the region's biodiversity (i.e. habitats or species)? * Will there be no net loss of priority habitats and species and no damage to EU designated Natura 2000 sites?	Long term/permanent	0
		94	Does the development help create any new areas of woodland with priority for any native species?	Long term/permanent	0
		95	Are all nature conservation features retained unless avoidable? This includes mature trees, hedgerows, shrub areas, water features, geological features and other Biodiversity Action Plan priority habitats and species.	Long term/permanent	+

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		96	Does the development compromise the long term retention of any trees / groups of trees, woodland providing amenity and in particular any trees with tree preservation orders?	Long term/permanent	0
		97	Is all relevant biodiversity legislation complied with e.g. the Habitats Directive?	Long term/permanent	+
		98	Are any ANOB's affected?		+
		99	Is the development to have an adverse effect on any of the following; local nature reserve, ancient woodland, a site of nature conservation interest or a regionally important geological / geomorphological site?	Long term/permanent	+
		100	Is planting made up of native ( regional or local) plant species for soft and hard landscaping, surface and boundary treatments?	Long term/permanent	+
	Flood risk	101	*Is the development sited and designed in accordance with the sequential test set out in PPS 25?		0
		102	*Following a comprehensive Flood Risk Assessment, what measures have been taken to reduce the contribution the development may make to flash flooding?	Long term/permanent	+
		103	*What percentage of the total roof area in the development is designed to allow the harvesting of rain water for re-use and/or is covered by green roofs?	Long term/permanent	+
		104	*Will the development have provision for community management of facilities, open space, SUDS, grey water schemes etc.	Long term/permanent	+
		105	Does the development lie within an undefended area at risk of flooding?		0
		106	Does the development create or exacerbate flooding elsewhere for example by impeding the flow of floodwater?		0
		107	Does the development result in the loss of natural floodplain?		0
		108	Does the development interfere with natural coastal processes if applicable?		0
		109	Does the development impede access to a watercourse for maintenance or flood defence purposes?		0
		110	Are any proposals for flood risk management adequately funded over the developments lifetime?		0
		111	Does the development incorporate the use of SUDS, and where necessary flood resilience measures?	Long term/permanent	+
Geology	112	Does the development conserve, enhance or restore geological diversity?	Long term/permanent	+	

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	Light pollution	113	*Will the security lighting strategy be designed to minimise light pollution and disruption to neighbours?	Long term/permanent	+
	Noise pollution	114	*Will the site be designed to minimise the impact of noise from external sources?		0
		115	Does the development take into account noise intrusion and has an assessment been made of its character as well as its level? Is the development noise sensitive itself?		0
		116	Have appropriate sources of noise control been considered - engineering / layout /administrative arrangements?		0
		117	Does the development give rise to other sources of disturbance from vibration? If so, how are these effects mitigated?		0
	River and ground water quality	118	*If there are any public or private surface or groundwater abstractions on or close to the site (within 2 km), are pollution prevention measures being installed to ensure that water quality is not adversely affected during and after development.		0
Sustainable Communities	Community	119	*Will a social impact assessment be carried out to examine the impact of the development on the existing community?	Long term/permanent	+
		120	*Has the community been actively involved in the development proposal:	Short term	+
		121	*Have local community stakeholders have been told about the proposal (e.g. public notices and adverts) so that they can comment to the Planning Authority	Short term	+
		122	* Have local community stakeholders have been consulted for opinions on a pre-prepared scheme (e.g. leaflets and return forms)	Short term	+
		123	* Have local community stakeholders have been asked to select their preferred option from a range of schemes and their preferred proposal has been put forward (e.g. through remote surveys or through a public meeting)		0
		124	*Have local community stakeholders have been involved in the preparation of this proposal (e.g. through workshops or participative processes)		0
		125	Is the design 'inclusive' - is all relevant DDA legislation to be followed?	Long term/permanent	+
		126	Has stakeholder consultation taken place?	Short term	+
		127	Does the development provide or contribute to any local community services or facilities?	Long term/permanent	0/+

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	Culture	128	Does the development impact on a conservation area or any of the regions nationally and internationally designated cultural assets?		0
		129	Does the site itself have a historic use, of national or local interest? Have English Heritage been consulted (if appropriate)?		0
		130	Will it help to protect or enhance existing features of the historic built environment? * including listed buildings, World Heritage Sites, Historic Parks and Gardens, Historic Battlefields, and the wider historic landscape. Do the relevant assessments make an assessment of how change is absorbed?		0
		131	Does the site itself have any historical importance (separate to its archaeological status)		0
		132	Is any public art included in the development?		0
	Economy, enterprise and innovation	133	*Will new business space increase/maintain the viability of existing businesses?		0
		134	*Will the development be designed to suit the needs of prioritised business sectors as identified in the RES?	Long term/permanent	+
		135	*Will the development be designed to attract inward investment?	Long term/permanent	+
		136	*Is new business space being developed close to current business centres to enable bulk purchasing, shared costs e.g. landscaping, shared Green Transport plan, facilities etc?	Long term/permanent	?
		137	*Will flexibility be designed into commercial units to provide adaptability to changing market needs?		0
		138	Does the development help promote a market for recycled and recovered materials / products / by-products?	Long term/permanent	+
		139	Could the development adversely affect local tourism?		0
		140	Does the development contribute to economic growth and competitiveness in the region?	Long term/permanent	+
	Education & skills	141	How will the development change the perception of waste to regard it is a resource and in the policy shift from disposal to processing.	Long term/permanent	+
		142	How will the development improve the quality and availability of information available on waste treatment in the local area?	Long term/permanent	+
		143	How many jobs of what skill level and duration will be created by the local community?	Long term/permanent	+

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		144	Does the development offer education which can inform, educate and work towards changing the behaviour of residents, consumers and the wider economy in regards to waste?	Long term/permanent	?
	Effective management	145	What monitoring will be carried out on the to monitor performance on both the building (e.g. commissioning of building services) and operational performance (other than those conditions to be imposed by the EPR)	Long term/permanent	+
		146	Is an EPR being developed? What are the major issues? Is the EPR being submitted at the same time as the planning application?	Long term / permanent	+
		147	Is there sufficient funding in place / commitment to maintain any significant drainage / flooding protection provided by the development?	Long term/permanent	+
		148	If the development has a known lifespan - is appropriate restoration and aftercare an integral part of the plans?	Long term/permanent	?
		149	Are the proposed operating hours acceptable?		0
		Employment opportunities	150	*What is the potential for the development to create additional permanent jobs either through new business or for maintenance of the development?	Long term/permanent
	151		*If the development is part of a publicly funded regeneration scheme, will the contractors engage local labour?		0
	Health	152	Does the development influence health in the local area / have the potential to reduce health inequalities?		0
	Place making	153	*Will a landscaping scheme be drawn up for the site – to include Public Open Space (POS), street scenes, public/private space boundaries and site boundaries, with landscape and ecological assets preserved?	Long term/permanent	0/+
		154	Does the development affect the quality, character or amenity value of the local countryside?	Long term/permanent	-
		155	does the design reinforce local distinctiveness and strengthen the sense of place?		0
	Regeneration	156	Does the development have the opportunity to positively influence the pattern of local deprivation?	Long term/permanent	+
	Safety	157	*Will the proposed street network provide a high quality public realm with a pedestrian friendly environment?	Long term/permanent	+
		158	*Will development be designed to "Secure By Design" or equivalent standards?	Long term/permanent	0/-

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		159	Does the development involve the storage, handling or distribution of explosive, highly flammable, toxic or corrosive materials If so, are these risks adequately mitigated?	Long term/permanent	?
	Visual impact	160	Has an assessment been made of the visual intrusion of the development on the townscape / landscape and are appropriate mitigation / enhancement measures proposed?	Long term/permanent	+
		161	Does the development consider Swale Borough Council's guidelines contained in the Council's Landscape Character Assessment Guidelines and Supplementary Planning Document?	Long term/permanent	+

## 4 Conclusions and Recommendations

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4.1 The results of the SA demonstrate that the proposed development responds well to the SA objectives. The principal strengths of the proposal with regards to sustainability are in relation to:

- The development holds the opportunity to reduce the amount of waste potentially going to landfill. It promotes waste management in a sustainable manner in line with the Waste hierarchy with energy recovery from pre treated waste. **The SEP will import as its feed stock approximately 500,000 to 550,000 tonnes per annum of pre treated waste comprising Solid Recovered Fuel waste, Commercial & Industrial waste and Municipal Solid Waste. The plant may accept up to approximately 25,000 tonnes of waste plastics from the paper mill.**
- The paper mill requires a high volume of heat in its production processes. The SEP will generate power and provide heat to the mill in the form of steam. The SEP will achieve Good Quality CHP status which means that it is a high energy plant.
- The power and steam demands of the mill are currently met by the on-site CHP plant, which is fired by natural gas, and by a paper sludge combustor. As the SEP will provide energy to the mill, the demand for energy from the gas fired CHP plant will be reduced. This will increase the fossil fuel efficiency by generating energy from a fuel which is partly biogenic and by reducing the level of natural gas used by the CHP plant.
- It is estimated that 500 people will be employed during the construction phase. It is estimated that the proposed development will create 50 permanent full time jobs.

4.2 At this stage the SA does not include information on the monitoring and delivery of the scheme. It is an appraisal of the scheme at the design stage. This approach has been adopted for a number of reasons:

- The points covered within the SA are very wide ranging and the performance of the facility will be monitored on different levels through other channels such as the monitoring of the local waste strategy, employment surveys etc.

- On a performance basis, pollution control regulations such as the Environmental Permit Regulations which will govern the operation of the facility; adherence to these will ensure the scheme will function within the limits identified. This will cover the management of the facility as well as the relevant design / technology considerations and provides for ongoing monitoring and auditing via the Environment Agency's Operator Risk Assessment (ORRA) method.

#### Further Considerations

- 4.3 To improve the sustainability of the proposals, it is recommended that the following are considered when progressing the detailed design:
- Increased community involvement / education provided to the community about the waste management issues the development addresses.
  - The provision of data to bodies which may request information for the purposes of monitoring the performance of the project, such as employment surveys, further revisions to the local waste strategies, etc.
  - The adoption of a sustainability and/or Environmental Management System that picks up relevant items identified through this sustainability appraisal, in a structured way, and sets relevant targets and objectives alongside and/or as required by the Environmental Permit.
  - The adoption of a BREEAM rating system for buildings on site, or (if not a certificated scheme) incorporation of the relevant credit criteria at the detailed design stage.
- 4.4 It should be noted that making additional changes to the design to further improve sustainability are likely to have cost implications for the project.



## References

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