

SECTION C
MINERALS AND WASTE DISPOSAL

Background Documents - the deposited documents, views and representations received as referred to in the reports and included in the development proposals dossier for each case and also as might be additionally indicated.

Item C1

SW/09/894 – Installation of a small scale biomass power plant within an existing and extended building for the generation of renewable energy from low grade waste wood at Ridham Dock Road, Iwade, Sittingbourne, Kent

A report by Head of Planning Applications Group to Planning Applications Committee on 11 May 2010.

SW/09/894 – Installation of a small scale biomass power plant within an existing and extended building for the generation of renewable energy from low grade waste wood at Ridham Dock Road, Iwade, Sittingbourne, Kent ME9 8SR (MR. 921 674)

Recommendation: Permission BE GRANTED subject to conditions.

Local Member: Mr A Willicombe

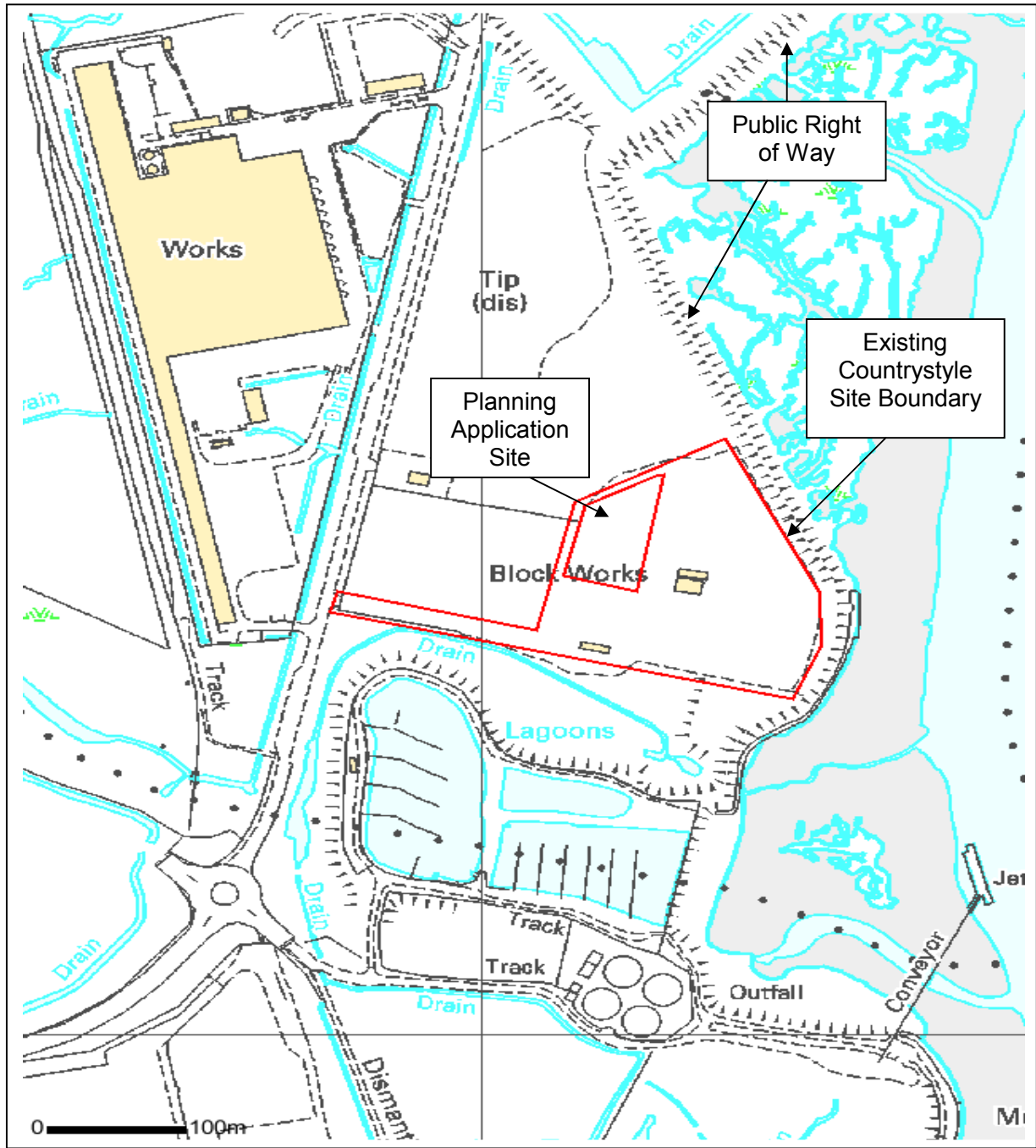
Classification: Unrestricted

Background

1. Planning permission was granted in 2006, for a material recovery facility (MRF), in-vessel composting facility and the continuation of secondary aggregate recycling operations at the Countrystyle Recycling site, Ridham Dock, under planning consent reference SW/05/1392. Under its current consent the site is permitted to handle some 31,000 tonnes of compostable waste and 35,000 tonnes per year of recyclable waste through the MRF. Whilst the permission also allows for the continuation of 10,000 tonnes per annum of secondary aggregate recycling, this activity appears to have all but ceased and replaced with shredding of low grade wood waste.

Site Description and Proposal

2. The site itself lies some 2km north of Kemsley, 2.1 km to the east of Iwade and 1.2km to the east of the A249. It lies close to habitats which form part of the Swale SSSI and the Medway Estuary and Marshes Ramsar site respectively. A site location plan is attached.
3. A planning application has been submitted by Bioflame Limited, in partnership with Countrystyle Recycling, for the installation of a small scale biomass power plant within the dedicated MRF building located on the existing Countrystyle Recycling Limited site, for the generation of renewable energy from the low grade wood waste currently being shredded on site. It is proposed to extend the MRF building in order to accommodate the wood processing/shredding activity, thereby fully enclosing the operation. Whilst the wood waste



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NOT TO SCALE



Ridham
Dock
Industrial
Area

Existing
Countrystyle
Recycling
Site

A249

0 500m

shredding activity is not currently permitted, the wood waste is nevertheless already available on site as part of the MRF. The only external element proposed would be a transformer and stack, which with a diameter of some 1.3 metres, would have a height of approximately 16 metres.

4. The intention would be for Bioflame to provide the plant and operate the system on a daily basis and for Countrystyle to supply the low grade wood waste to feed the plant.

Process

5. In terms of process, it is proposed that some 30,000 tonnes per annum of recovered biomass (i.e. pre-shredded material) is fed via a walking floor/fuel handling area into two thermal combustion units, which would be maintained at a constant temperature of 850°C. During the time of exposure to these temperatures, the biomass releases combustion gases which pass through residence chambers. These chambers are designed to maintain the temperature of the combustion gases for a minimum of 2 seconds to ensure clean burn and eliminate any traces of carbon. The combustion gases leave the residence chambers and enter a boiler in order to produce steam. This steam is then passed through a turbine generating electrical power to be exported into the National Grid.
6. After the steam has released its energy through the steam turbine, it is condensed back into water using a closed loop system thus allowing water to be continuously recycled through the boiler. The applicant has indicated that this 'closed loop system also has the potential to be used for a range of heating applications should they become available in the future, representing an opportunity for the plant to become a combined heat and power source (CHP). Flue gasses leaving the boiler would be passed through two filters in order to remove particulate and prevent any unwanted emissions prior to leaving via a stack. This element of the process would be measured and strictly monitored by the Environment Agency under the terms of an Environmental Permit following any planning consent gained by the applicant.
7. The bottom ash from the process would represent between 1% to 5% of the total throughput. The material would be collected in sealed wetted bins which the applicant considers given it would be classified as non-hazardous has the potential for use as a soil conditioner or second grade aggregate and would be used off site.

Proposed Hours of Operation

8. Whilst the proposed biomass plant itself would require to be operational on a 24 hour basis, waste wood deliveries, shredding and the acceptance of fuel into the handling area would remain within the current permitted hours of 0530 and 1800 (Monday to Saturdays and Public Holidays).

HGV movements

9. Currently the site is restricted to a combined total for all permitted uses at the site, of some 132 daily vehicle movements which equates to 66 vehicles in and 66 out. The delivery of the wood waste it is proposed to utilise in the plant is already included in the current vehicle figures, therefore the proposed development would not result in any net increase in vehicle movements to the site.

Environmental Statement

10. The application is also accompanied by an Environmental Statement which seeks to predict the potential environmental effects from the development on a range of sensitive environmental receptors and proposes a number of mitigation measures to ensure such impacts would be kept to an acceptable level.

Planning Policy Context

11. The National and Development Plan Policies summarised below are relevant to the consideration of the application:

National Planning Policy – National Planning Policies are set out in PPS10 (Planning for Sustainable Waste Management) and PPS23 (Planning and Pollution Control).

The South East Plan May 2009

Policy W5: Targets for diversion from landfill. A substantial increase in recovery of waste and a commensurate reduction in landfill is required in the region.

Policy W11: Waste collection, planning and disposal authorities should encourage the separation of biomass waste, as defined in the Renewables Obligation, and consider its use as a fuel in biomass energy plants where this does not discourage recycling and composting.

Policy W12: Support for other recovery and diversion technologies including the combined generation and distribution of heat and power.

Policy W17: Waste development documents will, in identifying locations for waste management facilities, give priority to safeguarding and expanding suitable sites with an existing waste management use and good transport connections. The suitability of existing sites good accessibility from existing urban areas or major new or planned development, good transport connections, compatible land uses, including previous or existing industrial land use, contaminated or derelict land and be capable of meeting a range of locally based environmental and amenity criteria.

Kent Waste Local Plan (Adopted March 1998)

Policy W7: Locations considered to be suitable in principle for re-use. This site is included.

Policy W9: Locations considered to be suitable in principle for waste separation and transfer. This site is included.

Policy W17: Having regard to air quality.

Policy W18: Before granting permission for a waste management operation the planning authority will require to be satisfied as to the means of control of:-

- (i) noise
- (ii) dust, odours and other emissions
- (iii) landfill gas

Particularly in respect of its potential impact on neighbouring land uses and amenity.

Where permission is granted for the disposal of wastes that generate landfill gas, permission for plant to utilize the gas will be granted.

Policy W19: Before granting permission for a waste management facility, the planning authority will require to be satisfied that surface and groundwater resource interests will be protected and that where necessary a leachate control scheme can be devised, implemented and maintained to the satisfaction of the planning authority.

Policy W20: Before granting planning permission for a waste management facility the Planning Authority will be satisfied that proposals have taken account of drainage and flood control.

Policy W21: Before granting permission for a waste management proposal the planning authority will need to be satisfied that the earth science and ecological interests of the site and its surroundings have been established and provisions made for the safeguarding of irreplaceable and other important geological and geomorphological features, habitats, or species of wildlife importance. Where an overriding need requires some direct loss or indirect harm to such features, habitats or species, where practicable suitable compensatory mitigation measures should be provided.

Policy W22: When considering applications for waste management facilities the planning authority will:-

- (i) normally refuse permission if it is considered that the proposed access, or necessary off-site highway improvements or the effects of vehicles travelling to and from the site, would affect in a materially adverse way:-
 - (a) the safety (or would exceed the capacity) of the highway network
 - (b) the character of historic rural lanes
 - (c) the local environment including dwellings, conservation areas and

listed buildings.

- (ii) ensure that any off-site highway improvements considered to be necessary to secure acceptable access are completed, if necessary in stages related to the development of the site, before specified operations on site commence and provided at the development's expense.

Policy W25 When considering details relating to the siting, design and external appearance of processing plant, hard surfacing, buildings and lighting, the planning authority will ensure that:-

- (i) facilities are grouped to prevent sprawl and the spreading effects, and to assist screening.
- (ii) Advantage is taken of topography and natural cover.
- (iii) Designs and means of operation minimise visual and noise intrusion.
- (iv) Appropriate colour treatment is provided, to reduce their impact and to assist their integration into the local landscape.

Policy W25A: Proposals to reuse or adapt existing buildings and site features such as redundant agricultural buildings and hardstandings as part of a waste management facility, will be permitted.

Policy W27: Securing and considering the interests of users of the Public Right of Way

Swale Borough Local Plan

Policy SP2: In order to provide a robust, adaptable and enhanced environment, planning policies and development proposals will protect and enhance the special features of the visual, aural, ecological, historical, atmospheric and hydrological environments of the Borough and promote good design in its widest sense. Development will avoid adverse environmental impact, but where there remains an incompatibility between development and environmental protection, and development needs are judged to be the greater, the Council will require adverse impacts to be minimized and mitigated. Where a planning decision would result in significant harm to biodiversity interests, which cannot be prevented or adequately mitigated against, appropriate compensation measures will be sought.

Policy E12: Sites designated for their importance to biodiversity or geological conservation.

Policy B2: Providing for new employment.

Policy U3: Renewable Energy - The Borough Council will permit proposals for renewable energy schemes where they demonstrate environmental, economic and social benefits and minimise adverse impacts. Before planning permission is granted, the Borough Council will consider such matters including the contribution to the regional requirement for renewable energy and noise generation, air emissions and odour.

Policy B10: Ridham as an existing committed site.

12. Consultations

Swale Borough Council: In their initial comments on the application whilst the Borough Council have raised no objection in principle to the proposed development they have raised queries in relation to air quality management, the ability for electricity generated to be used on surrounding uses and the ability to secure CHP.

They further state the following *“However, the Council notes that objections have been raised to you from both Natural England (NE) and the Royal Society for the Protection of Birds (RSPB). Whilst the Council accepts that, given the submission of additional data and mitigation measures, these objections may be removed in the fullness of time, officers consider that Members are unlikely to support such a scheme whilst these objections remain. As such, it is my opinion that the development will not be acceptable to Swale Borough Council in its current form.”*

The final views of the Borough Council are awaited

Iwade Parish Council: Raise objections in relation to potential impacts from emissions, the origin of fuel proposed and impacts on nearby mudflat areas and wildlife. The full comments of the Parish Council are appended to this report (Appendix A).

Minster on Sea Parish Council: No objection raised to the proposal given its low impact on the A249 road infrastructure however would require restrictions on types of waste material being processed through the Biomass plant.

Protect Kent (CPRE): No objection raised stating the following: *“subject to the concerns around flood risk and potential impact on the nearby Habitats Directive sites being resolved to the satisfaction of the Environment Agency, Natural England, RSPB and Kent Wildlife Trust, we would like to offer our support for this proposal.”*

English Heritage: No comments to make.

Environment Agency: No objection is raised subject to the imposition of a number of planning conditions, Land Contamination, storage of fuels/chemicals and biodiversity. They also draw attention to the potential for some of the bottom ash being classed as hazardous given that the use of contaminated wood may influence the composition of the waste. The applicant will therefore need to demonstrate their methodology for classifying the waste as non-hazardous. The impact assessment should therefore include an assessment of what happens where waste ashes are unable to be recovered as proposed in the application. The proposal would also require an Environmental Permit which would regulate amongst other matters stack emissions. In this respect the E.A. have confirmed they would robustly regulate emission limits as stipulated in any future Permit.

Health Protection Agency: No response received.

Kent Wildlife Trust: No response received

National Grid: No comments received.

Natural England: Raise no objection to the proposal subject to off site noise monitoring of the plant once operational in order to ascertain the level of the noise at the boundary of The Swale SPA to ensure that in the event levels exceed those predicted further mitigation measures are employed to reduce noise. They also require a condition to be imposed restricting ground works such that they are only undertaken between July and September (inclusive) in order to avoid the breeding and over-wintering bird seasons.

The Ramblers: No comments received.

SEEDA: Maximising the value of waste is of economic importance to the South East. The application meets the Regional Economic Strategy Objective to meet sustainable prosperity within environmental limits, through Target 12, which seeks to achieve a 30% increase in GVA generated per tonne of materials entering the waste stream by 2016. However, we acknowledge that Kent County Council will need to determine whether the application is in accordance with the Development Plan.

South East England Partnership Board (SEEPB): Does not consider the proposed development to be of regional significance, therefore does not wish to make any comment.

Biodiversity Projects Officer: Note that initial ecological surveys did not identify any protected species on the development site but did reveal reptiles at the site edge. Having regard to PPS9, the proposed measures to enhance the habitats of the adjoining areas which includes enhancement to embankments and a drainage ditch together with the creation of hibernacula, must be carried out. In order to minimise any impacts on designated sites the mitigation proposed in the report for the Noise and Air Quality must also be carried out during the construction and operational phase of the development.

Environmental Management Officer (PROW): No objection raised.

Heritage and Conservation (County Archaeologist): Require a condition requiring the implementation of a programme of archaeological work in accordance with a written specification and timetable to be agreed, prior to any development taking place.

Jacobs (Landscaping): No objection is raised.

Jacobs (Noise, Dust, Odour)

Air Quality: No objection raised in connection with the proposal stating that *“the proposed site is unlikely to cause detriment to the nearest sensitive receptors and ecological sites in terms of air quality. The existing background levels are well below the Air Quality Objectives”*.

Noise: Is satisfied that the noise levels predicted are representative of those likely to be encountered at the nearest residential properties located some 1200m from the site which will be in the order of 30 dB below the existing background levels and is therefore satisfied that there would be no adverse impacts from noise.

Transport Planning (Kent Highways): No objection is raised on the basis that it is considered that the traffic movements associated with the development are minimal and have

little impact on the highway.

RSPB: No objection raised subject to the monitoring of noise levels during the operational stage as indicated in the planning application documents. In addition, a condition should be imposed, restricting any noisy construction operations to take place outside the period of October to March.

Local Member

13. The Local County Member, Mr A Willicombe was notified of the application on 2 November 2009 along with Mr M Whiting, the adjoining Member for Swale Central.

Publicity

14. The application was publicised by the posting of a site notice and advertisement in the local newspaper.

Representations

15. No letters of representation have been received to date objecting to the proposal.

Discussion

16. Section 38(6) of the Planning and Compulsory Purchase Act 2004 requires that planning applications are determined in accordance with the development plan unless material considerations indicate otherwise. Until the Kent Waste Development Framework has been adopted as a replacement for the Kent Waste Local Plan (1998), and any identified sites and locational criteria have been subjected to a Sustainability Appraisal and Strategic Environmental Assessment as part of that process, Planning Policy Statement 10: Planning for Sustainable Waste Management (PPS10) requires that planning authorities should ensure proposals are consistent with its policies. Other material planning considerations include PPS 23: Planning and Pollution Control.
17. Support in principle for the establishment of alternative waste management facilities including waste transfer/ waste recycling exists at both the national and regional level, where waste should be considered as a resource with the aim of reducing the amount of waste going direct to landfill. In this context the South East Plan includes policies which amongst other matters encourage the use of biomass as a means of generating energy where this does not discourage recycling and composting and where possible should also aim to incorporate combined generation and distribution of heat and power.
18. Policies W7 and W9 identify the locational criteria against which individual proposals will be considered, whilst policies W17 to W26 set out the operational criteria. The site is identified under Policy W7 and W9 as being suitable in principle for waste transfer and recycling.
19. The site is an existing operational waste management facility currently run by Countrystyle Recycling as an In-Vessel Composting and material recycling facility (MRF). Whilst the site may accept wood waste via the MRF facility, under the terms of the existing consent the operator began to explore other methods for dealing with this particular waste stream in a more sustainable manner. Upon making a routine visit to the site during 2009, it was found that the operator was undertaking the shredding of low grade wood waste on site, an activity which fell outside the terms of their planning permission. This breach is also reflected in the objections to the planning application by Iwade Parish Council. The operator was formally requested to regularise this breach and advised that undertaking such an activity in the open at this site would require separate consideration and an assessment made of any potential impacts on the nearby designated areas, particularly from dust and noise. Following discussions with the operator officers were advised that discussions were being held with Bioflame Limited in order to seek ways in which they could make better use of this waste stream by using it as fuel to create energy. The operator accepted that there could be potential impacts associated with the shredding of wood in the open and hence the application now makes provision for this activity along with the plant itself to be contained within a fully enclosed building.

Amenity Impacts

21. The applicant proposes that all feedstock preparation would be undertaken within a fully enclosed building, including the shredding of wood waste. In order to facilitate this, an extension to the existing MRF building is proposed. Iwade Parish Council have raised concerns that dust is an existing problem in the Ridham area although they indicate that this is mainly derived from the open air stockpiles of plasterboard at the nearby Knauf factory. In addition the Parish Council raise concerns in relation to potential plant emissions and their potential harm to human health and wildlife and impact on the nearby designated sites.

Dust and Emissions

22. The applicant acknowledges that given the site is located close to sensitive designated areas such as SPA, SSSI and Ramsar, the most appropriate way of containing dust from the wood shredding operations would be for them to be fully contained within the building. Advice has been sought from Jacobs on air quality impact who are of the opinion that the proposed development would be unlikely to cause any detriment to nearest sensitive receptors and ecological sites in terms of air quality and that existing background levels are well below the air quality objectives for the area.

23. With regard to stack emissions, the environmental statement accompanying the application included an assessment of the potential impacts on air quality. The results of dispersion modelling indicated that there would not be any exceedence of the relevant Air Quality Objectives (AQOs), declared for the protection of human health, at any location as a result of emissions from the proposed development. Potential impacts at local wildlife habitats were also assessed in accordance with relevant EA guidance which indicated emissions would not result in significant impacts at sensitive ecological designations. Neither the EA or Natural England have raised objections on impacts on air quality from emissions.

24. Notwithstanding that the applicant considers the bottom ash which would be removed from the site would be non hazardous, given the nature of the waste stream which may include some contaminated wood, the E.A. considers there is the potential for some of this material to be classified as hazardous. In this respect they consider the assessment undertaken of the potential impacts from the development should have included an assessment of what happens where waste ashes are unable to be recovered as proposed in the application. In order to address their concerns I would propose that a condition be imposed requiring the submission and approval of a scheme which sets out the methodology for the classification of the ash and the procedures for its removal off site.

25. Should planning permission be granted, the operator would be required to obtain an Environmental Permit from the Environment Agency who would be responsible for monitoring emissions limits specified through the Permit and which they have confirmed would be robustly regulated by them.

Noise

26. In terms of potential noise nuisance, particularly at the construction stage, Jacobs, the RSPB and Natural England initially raised concerns in relation to potential noise impacts on the nearest sensitive receptors and on SPA birds and requested that further information be submitted by the applicant in order to satisfy themselves that there would be no detrimental impact associated with the development.
27. Further information provided indicated that noise levels within the SPA and Ramsar sites during the operational phase of the development would not exceed 40.2dB LAeq at locations beyond 20m of the site boundary. The RSPB accept that operational noise levels would be unlikely to affect bird behaviour and welcome the applicants willingness to regularly monitor noise levels during the operation of the plant to ensure noise levels predicted are not being exceeded. Natural England concur with this view and would require any future permission to include an appropriately worded condition to secure this. Natural England also share this view and would require restricting ground works to be undertaken between July and September inclusive, in order to avoid the breeding and over-wintering bird season should Members resolve to grant planning permission. In addition should permission be granted I would recommend a condition be imposed that any noisy construction operations be restricted to outside the period of October to March.
28. The County Council's noise advisor Jacobs are also satisfied having reviewed the noise model developed by the applicant, that *"the updated noise rating levels, derived in accordance with BS 4142, are representative of those likely as a result of the operation of the proposed development. The predicted noise rating levels at the closest residential properties, which are located some 1200m from the development site, are in the order of 30 dB below the existing background noise level. I am therefore satisfied that noise impacts associated with the operational phase of the development will not adversely impact on amenity at nearby residential properties"*.

Visual Impact

29. The site lies within an existing and dedicated industrial area which is largely influenced by industrial buildings. The only external elements to the proposal would be coolers and a stack which would have a height of approximately 16m above ground level. Given the sensitive location of the site and its close location to the Saxon Shore Way, Jacobs Landscape have been consulted on the proposal along with the Public Rights of Way Officer. Whilst the Parish Council have requested some tree planting in order to 'soak up' the CO2 emissions and provide a buffer between the plant and nearby populated areas'. I concur with the view of our landscape advisor, Jacobs, that given the landscape in the Ridham area is heavily influenced by industrial buildings and given the proposed stack would be smaller than existing stacks in the area, I do not consider that the proposal would have a significant impact on the landscape and that planting at this site would be inappropriate given its existing "industrial and largely treeless landscape".

Conclusion

30. In conclusion, I am of the opinion that the proposal is consistent with the policies set out under PPS 10 and PPS 23. I am also of the view that it meets the relevant development plan policy requirements as set out in the South East Plan and Kent Waste Local Plan in terms of location, proximity to the primary and secondary road network and the broader policies which support biomass energy plants where this does not discourage recycling and composting for the combined generation and distribution of heat and power in order to help achieve regional and sub-regional self sufficiency and the targets for the diversion of waste going to landfill. In my opinion provided any future permission contains appropriate conditions, particularly those required to mitigate any adverse impacts on the nearby designated sites the development would not result in any adverse impacts on the local amenity. I therefore recommend accordingly.

Recommendation

31. I RECOMMEND that PERMISSION BE GRANTED, SUBJECT TO CONDITIONS covering amongst other matters annual waste throughput, vehicle numbers, construction methods and timings, noise levels, noise monitoring scheme, methodology for the classification of bottom ash, habitat enhancement including water vole protection plan, submission of a strategy for the recovery of waste heat & a program of archaeological works.

Case Officer: Angela Watts

01622 221059

Background Documents: See Section Heading
