RECYLING, RECOVERY AND RENEWABLE ENERGY FACILITY

PLANNING STATEMENT

WEALDEN BRICKWORKS SITE, LANGHURSTWOOD ROAD, HORSHAM, WEST SUSSEX

BRITANIACREST RECYCLING LTD

Date: March 2018

Our Ref: 10954
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RPS
20 Western Avenue
Milton Park
Abingdon
Oxon
OX14 4SH

Tel: 01235 821888
Email: rpsox@rpsgroup.com

QUALITY MANAGEMENT

Prepared by:	**Camilla Fisher**
Authorised by:	**Dan Smyth**
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EXECUTIVE SUMMARY

Britaniacrest propose to construct and operate a Recycling, Recovery and Renewable Energy (3Rs) facility at Wealden Brickworks, Langhurstwood Road, West Sussex. The proposed facility will help address the current shortfall in sustainable waste management capacity in West Sussex, including for commercial and industrial waste.

The proposed facility will incorporate an enhanced version of the Waste Transfer Station/Materials Recycling Facility already consented on the site. It will provide, in addition, an integrated energy recovery facility with a capacity of 180,000 tpa, offering a more comprehensive solution for sustainable waste management in West Sussex.

The 3Rs facility will have the capacity to manage 230,000 tonnes per annum of non-hazardous commercial and municipal waste. Approximately 95% of waste transported to the facility will be recycled, re-used or recovered for energy generation.

The proposal will allow the comprehensive redevelopment of a former industrial site which is allocated for strategic waste uses in the West Sussex Waste Local Plan (under Policy W10 (a)). It offers a significant improvement in appearance compared to the existing building on site and will relate well to the adjacent MBT facility.

During the second half of 2017 and early 2018, a thorough re-design of the facility has taken place, responding to feedback from consultees and the public on the original proposals. This re-design was undertaken through an iterative process by a design team comprising architects, landscape architects, technology advisers and technical specialists. Two alternative designs were consulted upon in early 2018. The current application is the design favoured by the majority of respondents, which achieves a significant reduction in height of the whole facility, a pleasing curvilinear roof design, reduction in mass and the use of a sympathetic colour scheme consistent with the High Weald colour palette. The site is well screened by topography and trees and the building has been brought below the treeline in the large majority of views. Noise impacts have been reduced using best available techniques in accordance with environmental permitting requirements.

The development offers several important benefits including:

- Diverting waste from landfill and/or export out of the county;
- Providing sustainable waste management infrastructure, helping to achieve net self-sufficiency in waste management in West Sussex;
- Generating 21Mw of renewable energy to be transported to the local distribution network;
- The potential to provide heat and power to local users;
- A reduction in overall mileage that waste is transported;
- A high-quality waste management facility, architecturally designed having appropriate consideration to its setting; and
- Job creation – potentially up to 300 jobs during the construction phase and up to 50 jobs when the facility is operational;

The 3Rs facility will be subject to the Environmental Permitting process, regulated by the Environment Agency during its operation. This will control matters such as emissions, air quality, noise, energy efficiency, waste acceptance, residues management, surface and groundwater and ground conditions. The Environment Agency currently regulates the site and has been consulted during the planning application process.

This Planning Statement:

- Describes the site and the development proposal;
- Summarises the national and local planning policy;
- Sets out the planning case and the need for the facility; and
- Reviews how the proposal addresses site specific and local constraints to development.

It is concluded that this proposal comprises much needed sustainable waste management infrastructure, meeting an identified shortfall in such facilities in West Sussex and the south east. The proposal has been designed to address all potential site constraints. The application is supported by a comprehensive Environmental Impact Assessment, the surveys of which have influenced the final design and which confirms that this development will have no unacceptable impact on the local environment. The proposal provides an important component of an integrated waste management solution for West Sussex. It complies with local and national waste management planning policy, it constitutes sustainable development and it should be considered favourably by West Sussex County Council.

1 INTRODUCTION

Introduction

1.1 This Planning Statement has been prepared by RPS to accompany an application to West Sussex County Council (WSCC) for planning consent to construct and operate a Recycling, Recovery and Renewable Energy Facility (3Rs Facility) at Wealden Brickworks, Langhurstwood Road, near Horsham, West Sussex RH12 4QD.

1.2 The 3Rs facility will be subject to the Environmental Permitting process, regulated by the Environment Agency during operation. This will control matters such as emissions, air quality, noise, energy efficiency, waste acceptance, residues management, surface and groundwater and ground conditions. The Environment Agency currently regulates the site and has been consulted during the planning application process.

1.3 The application is being made by Britaniacrest Recycling Ltd (the Applicant), pursuant to the Town and Country Planning Act (as amended) and Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 2017.

1.4 Members of WSCC have previously resolved to grant planning consent on this site for a waste transfer station/materials recycling facility (MRF) with a capacity of 230,000 tonnes per annum (tpa) (permission ref WSCC/018/14/NH). The Waste Transfer Station/MRF, which has been operational since February 2016 will be replaced and encompassed into the 3Rs facility.

1.5 The proposed 3Rs facility will have an identical capacity to that of the Waste Transfer Station/ MRF**,** but will employ more sophisticated technology, which still allows for the sorting and segregation of waste for re-use/recycling, but is also capable of recovering additional value from the residual waste streams accepted, aiding recycling rates, generating renewable energy and providing an opportunity for heat and power supply to local users. An overview of the process is provided in Section 3 of this Statement.

1.6 A previous application for this facility was submitted in December 2016. Following consultation responses and feedback from the Council, this application was withdrawn to enable to applicant to review and refine the design of the proposal to reduce its perceived impact, particularly from a visual and noise perspective. A thorough re-design has been carried out and this submission represents an update and replacement to the previously withdrawn application and the documents which supported it at that time.

Purpose of Planning Statement

1.7 The Planning Statement (PS) introduces the planning application documents and describes the reasons for the planning application. The Statement summarises the main elements of the proposed development and considers the proposals in the context of national planning policy, the development plan and other material considerations.

The Applicant

1.8 The Applicant is Britaniacrest Recycling Ltd (Britaniacrest). Britaniacrest is a family business, started in 1993 to provide affordable and professional skip hire and waste management in West Sussex and East Surrey for private and commercial customers. The family has forty years of experience in the waste management sector and is one of the South of England's leading private waste management companies. In December 2017, Britaniacrest, in partnership with Seneca, was awarded a five-year contract to manage refuse derived fuel (RDF) for WSCC with an extension option for up to five further years.

Pre- Application Consultation

Statement of Community Engagement

Neighbours & Parish Council

1.9 Consistent with the objectives of the West Sussex Statement on Community Involvement (Second Review – June 2014), the preparation of this application has been supported and informed by a comprehensive programme of local stakeholder engagement. The Statement of Community Involvement (SoCI), submitted with this application (included at Appendix A), provides full details of the consultation with the local community carried out at the pre-application stage as well as setting out the overall community engagement strategy proposed during the operation of the facility.

1.10 The objectives of the pre-application community consultation strategy were twofold:

- To provide details about the 3Rs facility proposal to the local community; and
- To provide a platform so the community could raise any questions or concerns, allowing Britaniacrest to respond to and address concerns when preparing plans and the design for the 3Rs facility.

1.11 A range of stakeholders have been consulted at the pre-application stage, including, elected members, local residents, business community and West Sussex County Council (see below).

1.12 Local community consultation focused on the Langhurstwood Road, Station Road, Warnham and north Horsham area.

1.13 The applicant has operated at this site for a number of years and has already established a local community liaison committee, called Wealden Works Community Liaison Group (CLG) (August 2015). It was therefore possible to build on this existing group to develop community liaison for the discussion about the proposed 3Rs facility.

1.14 Pre-application community consultation was undertaken in association with the previous scheme which has included 8 meetings with the CLG, two presentations, newspaper adverts, press coverage, Facebook posts and the development of a dedicated website. Two public exhibitions were held - 7th & 8th October 2016 and 26th & 27th January 2018 - at Roffey Millennium Hall, Crawley Road, Horsham. The exhibitions presented the proposals to the public and interested parties and sought feedback. The second exhibition presented two alternative design solutions, following which the design now submitted was selected.

1.15 Attendance at the second exhibition was much increased compared to the first, with over 50 on the Friday and over 80 on the Saturday - over 130 in all. Out of all those that attended the two-day exhibition in 2018, 112 people were prepared to leave the location where they live. Consequently, it has been possible to demonstrate that the outreach of the exhibition was well spread across the Horsham and district area. At the second exhibition there was clearly a greater willingness from attendees to fill in feedback forms and a total of 26 written responses were received at the exhibition – the majority of which were supportive of the proposed development

1.16 Leaflet drops of the newsletter (Britania Bulletin) were made to all homes in Langhurstwood Road and Station Road prior to the first exhibition, and to those roads plus properties in Mercer Road, Bell Road, the east side of Church Street and Wyvern Place, in Warnham prior to the second exhibition. All businesses in Langhurstwood Road also received the Britania Bulletin.

1.17 A dedicated Facebook page has provided an extremely useful tool, allowing the community to comment. The page currently has 206 followers. The Britaniacrest advert post was shared by the Horsham Community Facebook page which is considered a substantial outreach (the page currently has over 27,400 followers).

1.18 Key issues emerging from this consultation can be summarised as follows:

- Feedback has been reasonably supportive of the 3Rs facility;
- It is generally understood that such facilities are required to allow recovery of waste in the County;
- It is recognised that this development is to be located at a site which has a history of managing waste for many years and which has been allocated by WSCC for this type of use; and
- Concerns were expressed about potential emissions and compliance with regulations.

1.19 Previously there were a number of queries about the potential visibility of the facility. A series of photomontages which illustrated the visual impact of the facility were provided at locations that had been requested and agreed with WSCC. Attendees at the second exhibition were consulted on a rectilinear and curvilinear design and building materials colour; various opinions were expressed but there was generally support for the approach that has been followed, using the High Weald colour palette.

1.20 The applicant has prepared a strategy to ensure that community liaison is continued through the construction phase of the development and will agree with the community its preference for on-going communication once the facility is operational; it is anticipated that this is likely to be a similar pattern as the current CLG, that is, meetings once per quarter year.

1.21 The 3Rs facility provides a great opportunity to work with schools and colleges, which is something that Britaniacrest is happy to pursue. The development provides a unique opportunity for students to gain understanding of technology, science, engineering and trade skills and will provide space and facilities for training within its offices.

Local Planning Authority

1.22 The Applicant originally submitted a Scoping Report, providing a description of the proposed development and outlining the suggested Environmental Impact Assessment (EIA) scope, to West

Sussex County Council (WSCC) on 10th November 2015, requesting that WSCC provide a Scoping Opinion under Part 4 of the EIA Regulations (See Appendix 1.1 of the accompanying Environmental Statement (ES)). WSCC provided its Scoping Opinion on 15th December 2015 (See Appendix 1.2 of the accompanying ES). Since this time the EIA Regulations have been updated (2017). The scope has duly been updated to conform to these.

1.23 A detailed Transport Scoping Note was submitted to WSCC on 23rd August 2016. The Scoping note expanded the proposed transport assessment methodology of the original Scoping Report submitted in November 2015 (See Appendix 6.1 of the accompanying ES).

1.24 Specialist consultants from various other EIA disciplines have consulted relevant statutory and non-statutory bodies during the EIA process. Details of such consultation are provided in respective chapters of the Environmental Statement (ES) which supports this application.

1.25 A pre-application meeting was held 1st December 2015, seeking advice from planning officers of WSCC. Planning advice resulting from this meeting is summarised in a letter from Jane Moseley, County Planning Manager, dated 20th December 2015 (See Appendix B).

1.26 In summary, the County Planning Manager requested that the application should fully address key site issues identified in the "development principles" as set out in paragraph 7.3.15 of the adopted West Sussex Waste Local Plan.

1.27 The Council also requested that the new proposal covers the whole of the site to ensure that the scope of the development is clear to all parties involved in the determination of the application.

1.28 The Applicant's attention was previously drawn to the West Sussex Local [validation] List 2015 to ensure that the planning application was comprehensive. This validation list has since been updated (June 2017) however does not impact upon the requirements previously advised. In addition to the scope of the EIA outlined in the WSCC Scoping Opinion (and updated in accordance with EIA Regulations) other requirements for the application included:

- Drawings/plans/section plans;
- Design and Access Statement – a Design and Access Statement (DAS) is not required, under Regulations, for waste development, however details of the design process and why the final concept was selected should be included in the Planning Statement;
- Aerodrome Safeguarding Statement;
- Lighting Assessment; - The Planning Manager highlighted that details of lighting should be included in the application, either as part of the ES or in a separate assessment noting that these details will be important in relation to the railway corridor, and airport, and to establish visual impacts if site operations would be continuous, unlike adjacent sites which cease overnight.
- Need Statement – the Planning Manager highlighted, consistent with national policy, there is no requirement to demonstrate market or quantitative need for development on an allocated site so a need assessment is not required, however, clarification regarding

the likely sources of waste should be provided along with how it will be transported to site;

- Planning Statement - should reference the policy context, socio-economic impacts, outline community engagement and how this has influenced the proposed development and design principles underpinning the final form;
- Stage 1 Road Safety Audit - the need for a Road Safety Audit should be agreed with WSCC Highways once more details of the development have been established;
- Transport Assessment/Statement – methodology to be agreed by the WSCC Highways. (See Para 1.7 above).

1.29 Despite the feedback regarding no requirement for the DAS, one has been prepared to support this application, with a focus on the design evolution and the changes since the previously withdrawn application.

1.30 The West Sussex Local [validation] List 2017 indicates that a Stage 1 Road Safety Audit is required for all major planning applications that include any of the following:

- alteration to the existing highway;
- intensification of use of an existing access;
- formation of a new access;
- off-site highway improvements;
- all other applications that include proposals that do not meet recognised standards (Manual for Streets or Design Manual for Roads and Bridges) particularly relating to visibility, geometry and junction location.

1.31 As the proposed development will utilise an existing access and does not propose any changes to the existing highway, there is no requirement for a Stage 1 Road Safety Audit, as set out in the Design Manual for Roads and Bridges (DMRB). This position was confirmed through the pre-application Transport Scoping note and associated response.

Planning Application Validation & Statutory Requirements

1.32 The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 set out in Schedule 1 those developments for which an Environmental Impact Assessment (EIA) is mandatory and, in Schedule 2, those where an EIA may be required.

1.33 The facility is defined as a waste recovery facility but has been considered to fall under category 10 of Schedule 1 of the EIA Regulations *'Waste disposal installations for the incineration or chemical treatment of non-hazardous waste with a capacity exceeding 100 tonnes per day".*

1.34 The application is therefore supported by an Environmental Statement (ES).

1.35 The scope of information accompanying this planning application addresses the requirements of relevant legislation, regulations and guidance listed below:

- Town and Country Planning Act 1990 (Section 62);
- Town and Country Planning (Development Management Procedure) (England) Order 2015;
- Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 2017; and
- National Planning Application Validation Checklist and West Sussex Local List for the Validation of Planning Applications (June 2017).

Planning Documents

1.36 The Application is supported by the following documents:

- Planning Application Forms
- Ownership Certificate B
- Planning Supporting Statement (PSS)
- Design and Access Statement
- Environmental Statement (ES) Volume I (text), Volume II (figures) and Volume III (appendices)
- Environmental Statement, Non-Technical Summary (NTS)
- Statement of Community Involvement (SoCI) (PSS Appendix A)
- Aerodrome Safeguarding Statement (PSS Appendix C)
- Carbon Assessment (PSS Appendix G)
- Planning Drawings, as set out in Table 1.1 below.

Table 1.1: List of Plans and Drawings

Plan/Drawing	Reference
Site Location Plan	RPS-ST-XX-A-DR-0103
Existing Aerial Site Plan	RPS-ST-XX-A-DR-0101
Topographical Survey	RPS-ST-XX-A-DR-0102
Proposed Site Plan	RPS-ST-XX-A-DR-0100
Ground Floor Plan	RPS-MB-GF-A-DR-0104
Proposed Sections A-A & B-B	RPS-MB-ZZ-A-DR-0105
Roof Plan	RPS-MB-RF-A-DR-0106
Office & Workshop Ground Floor Plan	RPS-MB-ZZ-A-DR-0107
Office & Workshop First Floor Plan	RPS-MB-ZZ-A-DR-0108
Office & Workshop Second Floor Plan	RPS-MB-ZZ-A-DR-0109

Plan/Drawing	Reference
Control Room	RPS-MB-ZZ-A-DR-0110
Proposed Elevations	RPS-MB-ZZ-A-DR-0111
Storage and Recycling Area Plan and Elevations	RPS-XX-ZZ-A-DR-0112
Air Cooling Condenser Plan and Elevations	RPS-XX-ZZ-A-DR-0113
Cycle Shelter, Sprinkler Tanks and Pump House Layout & Elevations	RPS-XX-ZZ-A-DR-0114
Illustrative Visual	RPS-XX-ZZ-A-DR-0115
Gatehouse	RPS-XX-ZZ-A-DR-00116
Transformer Building	RPS-U01-ZZ-DR-A-0117
Illustrative Landscape Proposals	RPS-ST-XX-A-DR-0118
Earthworks Analysis	RPS-EFW-XX-DR-C-0700
Finished Levels	RPS-EFW-XX-DR-C-0701
Site Long Sections & Perimeter Sections	RPS-EFW-XX-DR-C-0705
Drainage Layout	RPS-EFW-XX-DR-D-0300
External Lighting Levels	RPS-ST-XX-A-DR-6302

2 THE SITE AND ITS SURROUNDINGS

Location

2.1 The Application Site is located at the former Wealden Brickworks site off Langhurstwood Road, approximately 900 m to the north-west of Horsham and 1.3 km to the north-east of Warnham. The site lies within the administrative areas of West Sussex County Council and Horsham District Council.

2.2 For identification purposes, the Application Site is centred at Easting 517112, Northing 134331. Drawing RPS-ST-XX-A-DR-0132 shows the Application Site boundary in red, alongside Figure 1.2 of the ES.

Site Description

Application Site

2.3 The Application Site, as defined by the application boundary, comprises approximately 3.8 hectares (ha) of land within the former Warnham and Wealden Brickworks site, a 24.4 ha site. The application boundary includes the proposed access route up to the adopted highway. The proposed development site comprises an area of 3.29 ha. The site includes a large warehouse building currently in use as a Waste Transfer Station/Materials Recycling Facility surrounded by hardstanding and several smaller buildings.

2.4 The Application Site, based upon its former use as a brickworks, is classified as a brownfield site in the West Sussex Waste Local Plan (WLP) 2014 and is one of the five allocated sites allocated for strategic waste management uses – three of which are no longer available.

Topography

2.5 The Site is relatively flat and falls from 51.30 m Above Ordnance Datum (AOD) within the north-east corner to 47.50 m AOD within the south-west corner. The surrounding topography is gently rolling which together with existing woodland and trees means that the site is well screened from the surrounding areas.

Surrounding Land Uses

2.6 The southern boundary of the Application Site is defined by the internal access road, beyond which lies the Weinerberger brickworks factory (also known as Warnham Brickworks). The London-Horsham railway line lies immediately to the west of the Application Site, beyond which there is heavily wooded and open countryside.

2.7 The eastern boundary of the Application Site is defined by an internal access road, beyond which lies the Brookhurst Wood Mechanical and Biological Treatment (MBT) Facility. The MBT Facility covers approximately 5.6 ha of land. It is operated by Biffa in partnership with West Sussex County Council having commenced receiving waste in 2014. The MBT Facility is consented by planning permission WSCC/055/09/NH. To the north of the MBT Facility lies an Ecological Habitat Area

which has been established in accordance with Condition 8 of the planning permission for the MBT Facility.

2.8 Two ponds are located within dense scrub including grey willow, hawthorn and blackthorn to the immediate north of the Application Site.

2.9 The land to the immediate north and beyond the ponds is currently vacant and comprises several derelict former brickworks buildings. A planning application (reference WSCC/080/13/NH) was submitted in 2013 for the construction of a new facility for the compaction and baling of Refuse Derived Fuel (RDF). At the time of writing, the planning application for the proposed facility is undetermined.

2.10 An Aggregate Treatment and Recycling Facility (ATRF) consented by Planning Permission WSCC/003/14 is approximately 315 m to the north of the Application Site boundary. Immediately north and east of the ATRF is the active Brookhurst Wood Landfill Site, which covers an area of approximately 34 ha. The landfill operates under Planning Permission DC/2919/06/NH. The landfill currently has planning permission to receive waste until the end of 2018 (reference WSCC/005/16/NH) and for completion of restoration of the landfill by December 2023. A leachate treatment plant and gas management compound, site office, store and car park are located between the ATRF and the landfill.

Access and Rights of Way

2.11 Access to the Application Site is via a private shared estate road which connects to the public highway at Langhurstwood Road. Langhurstwood Road links directly to the A264 some 750m to the south. The A264 links to the A24 to the south and the M23 to the north.

2.12 The internal access road off Langhurstwood Road also serves the Brookhurst Wood Landfill Site, the Weinerberger brickworks factory and the MBT Facility. It will also serve the proposed facility for the management of RDF, if approved. The internal access road has a 10mph speed limit imposed on all vehicles travelling on it.

2.13 There are no public rights of way located within the Application Site.

2.14 Further details on the proposed site access and traffic movements using this internal access as well as details of traffic movements on the public highway are provided in ES Chapter 6: Traffic and Transport.

Towns and Villages

2.15 The Application Site lies approximately 900m to the north-west of the edge of the existing settlement boundary of Horsham. Horhsam is the administrative and market centre of the Horsham District Council area. According to the 2011 Census, Horsham has a population of approximately 49,000 residents.

2.16 The land to the North of Horsham is allocated as a major strategic development site in the adopted Horsham District Planning Framework (HDPF), which post-dates the WSWLP. This urban expansion, which extends from the land to the east of Langhurstwood Road, north of the A264 between Langhurstwood Road and Wimland Road, has a resolution to grant outline planning consent, subject to a legal agreement (ref DC/16/1677). The proposed development will include up

to 2,750 homes, a business park, two primary schools, a retail centre, leisure facilities, public open space, landscaping and related infrastructure.

2.17 The Application Site lies approximately 800 m to the north-east of the village of Warnham. According to the Warnham Parish Plan (2007), the village has a population of approximately 1,100 residents.

Residential Properties

2.18 There are no residential receptors within the Application Site. Residential properties in closest proximity to the site include:

- Langhurst Moat Cottage and Wealden, Langhurstwood Road lie approximately 210m south-east of the site and several residential properties on Langhurstwood Road, lie approximately 370m south-east of the site.
- Grayland's Lodge, on Langhurstwood Road, lies approximately 330m to the north-east of the site;
- Residential properties on Station Road lie approximately 330m south of site;
- Cox Farm lies approximately 420m north-west of site; and
- A proposed residential development at North Horsham lies approximately 450m south-east of the site.

Landscape Character

2.19 The Application Site lies within National Character Area (NCA) Low Weald (121) and Local Character Area (LCA) LW8: Northern Vales. Both the Low Weald NCA and Northern Vales LCA are characterised by low lying, gently undulating clay vales with outcrops of limestone and sandstone which has provided materials for industries including brick and glass making. The land use is predominantly agricultural with urban influences, particularly Gatwick, Horley and Crawley, including major road and rail corridors and pylon lines.

2.20 An intricate mix of woodlands including ancient woodlands and broadleaved oak, hazel and hornbeam coppice are also found in the landscape along with lone field trees of historic parkland areas. There is evidence of deterioration of the landscape owing to poor management but also as a result of development pressures.

2.21 At the district level, the application site straddles two LCA's; P1 Upper Arun Valley and K2 Faygate and Warnham Vale. The characteristics are similar to those identified above, as well as the recognition of visual intrusions from the retail and industrial areas, housing and sand and gravel workings.

2.22 Further details on the national, county and district landscape character areas within which the Application Site lies are provided within ES Chapter 5: Landscape and Visual Impact Assessment.

Landscape Designations

2.23 The Application Site is not located within a designated landscape. The High Weald Area of Outstanding Natural Beauty (AONB) lies approximately 5km to the south-east of the site, and the Surrey Hills AONB approximately 6.7 km to the north-west of the site. The South Downs National Park is located approximately 15 km to the south-west of the site.

2.24 The locations of the landscape designations are shown on ES Figure 5.2 and further details on these landscape designations are provided within ES Chapter 5: Landscape and Visual Impact Assessment.

Nature Conservation Designations

2.25 The Application Site is not subject to any international, national or local nature conservation designations.

2.26 There are two statutory nature conservation designations within 10km of the Application Site. Warnham Mill Pond Local Nature Reserve (LNR) is located approximately 900m south of the Application Site and comprises a 40ha site containing freshwater marsh and a broadleaved plantage which supports breeding great crested grebes (Podiceps cristatu). Warnham Site of Special Scientific Interest is located approximately 700m to the north east of the Application Site and is designated for geological reasons.

2.27 There are also several non-statutory nature conservation designations within 2km of the Application Site, including an area of Ancient Semi Natural Woodland located approximately 200m to the south and east of the site and a further area of semi-natural woodland at Brookhurst Wood approximately 400 m to the north-east of the site which is designated as Site of Nature Conservation Interest (SNCI).

2.28 The locations of these designated nature conservation sites are shown on ES Figure 12.1, with further details of these designations provided within ES Chapter 12: Ecology and Nature Conservation.

Cultural Heritage Designations

2.29 The Application Site is not subject to any statutory or no statutory cultural heritage designations.

2.30 There is one scheduled monument with 1.5km of the Application Site. This is the Grayland Copse Moated Site (list entry 1010500), which is located some 60m east of Langhurstwood Road at the access point to the Application Site.

2.31 There is one registered park and garden located within 1km of the Application Site. This is the Warnham Court, which is registered at Grade II (list entry 1001413), and comprises a mostly 19th century park laid out from around the 1830s around the country house. Warnham Court and its parkland is located approximately 1.1km to the south-west of the Application Site.

2.32 There are 36 listed buildings within 1.5km of the Application Site. Of these, 35 are listed at Grade II and one, the Parish Church of St Margaretis listed at Grade I. Three of the listed buildings are located within the built development of Horsham and 14, are located within the built development of Warnham.

2.33 The Warnham Conservation Area lies within 1.5km of the Application Site at its nearest point. No Conservation Area Appraisal has been undertaken. The Conservation Area largely comprises the historic core of the village.

2.34 The locations of these cultural heritage designations are shown on ES Figure 9.2, with further details on these designations provided within ES Chapter 9: Archaeology and Cultural Heritage.

Groundwater

2.35 With reference to the British Geological Survey's (BGS) online interactive Geology Map, the solid geology underlying the Application Site is the Wealden Clay Formation with fine to medium grade sandstone and limestone. This is classified by the Environment Agency (EA) as Unproductive Stratum defined as having negligible permeability and are generally regarded as containing insignificant quantities of groundwater.

2.36 Reference to the BGS Regional Hydrogeology Map corroborates this by describing the underlying geology as 'rocks with essentially no groundwater'.

2.37 The potential for groundwater flooding is considered to be low. Based upon the EA's Groundwater Source Protection Zone mapping, the Application Site is located outside a Groundwater Source Protection Zone (SPZ). Further information on groundwater is provided within ES Chapter 11: Hydrogeology & Ground Conditions.

Surface Water and Flood Risk

2.38 A main river, Boldings Brook, flows in a southerly direction, located approximately 125m west of the site beyond the London to Horsham Railway Line. The Brook flows into Warnham Mill pond (part of Warnham mill nature reserve). Further downstream, the Brook discharges into the River Arun, to the south of Horsham.

2.39 The Application Site lies within an area designated by the Environment Agency as Flood Zone 1, which has a risk of flooding of less than 1 in 1,000 (<0.1%) in any year.

2.40 Further details on the surface water characteristics of the Application Site and flood risk are provided in ES Chapter 10: Hydrology & Flood Risk.

3 THE PROPOSED DEVELOPMENT

Introduction

3.1 This section describes the Proposed Development for which planning permission is sought.

3.2 In preparing the development proposals, consideration has been given to the following constraints and opportunities:

- Site context and visual and landscape impact;
- Ecological considerations;
- Proximity of receptors and the likely environmental impacts in terms of noise and air quality;
- Cultural heritage and archaeology;
- Ground conditions and hydrogeology;
- Hydrology and flood risk; and
- Traffic.

Overview of the Proposed Development

3.3 The proposed development will comprise a Recycling, Recovery and Renewable Energy (3Rs) Facility to sort, separate and process up to 230,000 tonnes per annum of residual commercial and industrial ("C&I") waste and/or residual municipal solid waste ("MSW").

3.4 The processing of waste by the proposed development will generate an estimated 21 megawatts (MW) of electricity per annum. Of this, approximately 18 MW would be available for export to the national grid, with the remainder used by the facility itself. The proposed development would also be capable of supplying heat to suitable external users, subject to a heating network becoming available. The quantity of head available will depend on the network configuration and the demand.

Facility Process & Operations

Overview

3.5 The design philosophy of the 3Rs Facility follows the Waste Management Hierarchy. It is designed to accept residual waste streams, which, in the absence of a 3Rs Facility, would probably be disposed of at landfill or exported out of the county. The Facility therefore comprises a mechanical sorting facility in which inert materials and potentially recyclable materials are extracted, followed by energy recovery where the Energy content of the remaining waste stream is recovered.

3.6 The Facility will be licensed to accept non-hazardous commercial and industrial wastes (C&I waste), but also municipal solid waste (MSW) should it become available (referred to generically as Acceptable Waste).

The Basic Process

3.7 The basic flow of the facility is that waste vehicles pass by the gatehouse, across the weighbridge and into the reception/tipping hall, HGV's carrying mixed waste would unload into the waste processing hall so recyclable material can be separated and HGVs with entirely non-recyclable waste would tip directly into the bunker. Recyclable materials would be separated and stored temporarily in the external storage building to the north-east corner of the site. The recyclable materials would then be manually sorted and transferred off site.

3.8 The residual waste (known as Feedstock) within the bunker, after further screening, is then incinerated on a moving grate within the boiler hall. Approximately 21MW of electricity is generated in the turbine hall with a proportion used by the facility itself and the remainder exported to the local distribution grid.

3.9 The efficiency of the facility determines the remaining energy available for export. It is not possible at this stage to state what the exact efficiency will be, but it will be more than sufficient to produce > 0.65 in accordance with the R1 Formula stated in the revised Waste Framework Directive (2008/98/EC). In consequence the facility will qualify as "recovery" under Article 3 of the Directive.

3.10 The operator will be required by the Environment Agency under the permitting process to minimise the electricity required to operate the facility to optimise the amount of energy which is available for export outside of the operation of the plant itself.

3.11 Hot gases produced during combustion (known as flue gas) go through cleaning, filtration and neutralisation within the flue gas treatment area. Bottom ash (the primary residual material) and ash from the flue gas treatment is safely removed from the site for off-site disposal or recycling.

3.12 In order to limit environmental nuisances such as vermin, dust, litter and odour all deliveries, handling and storage will be undertaken in a fully closed environment. Periodic washing will also be carried out to maintain a clean tipping area.

3.13 The operational process is set out in more detail in Appendix D.

Flue Stack

3.14 The facility will have a single flue stack with a proposed height of 95m located to the east of the main buildings. The height has been determined through computer dispersion modelling of emissions and evaluation of the resulting dispersion plumes so that ground level concentrations of key pollutants are kept well within acceptable levels under all operating conditions (See ES Appendix 7.2).

3.15 Dispersion of pollutants is dependent on a number of factors including local land topography, emission rates and pollutant concentrations and the height of the Facility buildings. The air quality and plume dispersion modelling used to identify the stack height necessary for optimum dispersion is described in detail in ES Chapter 7: Air quality.

3.16 The stack has been designed to meet all predicted climatic conditions. A separate windshield has been avoided thereby minimising visual impact. The outer surfaces of the stack will be grey-coloured, further minimising visual impact effects.

3.17 The applicant had previously undertaken consultation with the Aerodrome Safeguarding representatives for Gatwick Airport. This consultation confirmed that, as the building and stack height proposed are under the Outer Horizontal Surface (OHS) which lies at 204.35m AOD, there will be no infringement of this surface and no impact with regard to radar or navigational aids. The reduced height building will increase the distance of the building below the OHS. It was, however previously recommended that medium intensity red steady obstacle lights be placed around 1.5m from the top of the stack to ensure that the stack is clearly visible to helicopters and other aviation traffic at all times. The recommended obstacle lighting is therefore included within the design.

Overview of Residues Management

3.18 More detail regarding the process can be found in Appendix D

Incinerator Bottom Ash

3.19 The primary residual material from the combustion process is incinerator bottom ash (IBA) which consists of the non-combustible parts of the feedstock. The volume of IBA generated will be dependent on the composition of the Feedstock processed. However, it is estimated that the yearly quantity of IBA generated at the proposed facility will be approximately 40,000 tonnes.

3.20 IBA from the furnace will be quenched with water prior to transfer to the bottom ash area bunker. Storage for approximately 4 days of IBA has been provided. The Environmental Services Association (ESA) protocol for IBA agreed with the Environment Agency will be followed.

3.21 Due to the MPT Plant in the Waste Processing Hall, the incidence of metals in the feedstock will be small. Any metals within the feedstock, however, may be recovered from the ash during its subsequent processing. Transfer of IBA from the bunker to collection trucks will take place in an enclosed loading bay in order to limit fugitive emissions. All trucks leaving the facility will be securely covered.

Boiler Ash

3.22 Boiler ash residues will be removed from the tube surfaces of the boiler by an enclosed conveyor system and transferred to a silo located within the facility. The silo has the capacity to store approximately 10 days of boiler ash residue, and will be transported off site.

Flue Gas Cleaning Residues (APCr)

3.23 Flue gas cleaning residues will be removed from the baghouse filter by an enclosed conveyor system and transferred to two dedicated storage silo located within the facility. The storage silos have the capacity to store approximately 7 days of flue gas cleaning residues. The residues will be transported off-site either for recycling or to landfill.

General Layout, Design and Materials

3.24 The total application area is 3.8ha as shown by the red line on drawing RPS-ST-XX-A-DR-0103, this includes the external site road up to the point at which is connects with the public highway. The development will be contained within the land under the applicant's ownership comprising 3.29ha and is defined by the blue line also shown on drawing RPS-ST-XX-A-DR-0103.

3.25 Table 3.1 below summarises the component parts of the proposed development.

Table 3.1 Approximate dimensions of buildings and structures

Building	Maximum Height (m)	Width (m)	Length (m)	Area (GIA) (m^2)
Waste Processing Hall	12.85	67.50	30.46	1,821
Tipping Hall	12.85	51.87	36.11	1,873
Workshop	13.20	20.51	16.98	348
Bunker	32.43	59.30	24.15	1,432
Offices	13.20	32.00	29.00	448 (per floor x 3)
Control Room	18.69	12.80	8.50	272
Boiler Hall	35.92	29.58	59.43	1,757
Bottom Ash	17.00	11.70	14.85	174
Water Treatment Hall	9.45	17.92	16.52	296
Compressed Air and Electrical	9.45	17.92	13.36	239
Turbine Hall	25.90	24.64	37.17	916
Flue Gas Cleaning	23.00	30.96	10.99	258
Air Cooled Condenser	25.90	33.75	22.30	753
Transformer Enclosure	6.15	18.22	10.25	187
Storage/Recycling Area	8.60	18.74	43.85	822
Gatehouse	4.90	3.91	12.02	44
Flue Stack	95.00	2.5 dia	2.5 dia	n/a
Security Fencing	1.80	n/a	n/a	n/a
Total GIA				**12,536**
Total GEA				**13,160**

3.26 The overall layout of the proposed development is shown on Drawing RPS-ST-XX-A-DR-0100 and an illustrative visualisation is shown in Drawing RPS-XX-ZZ-A-DR-0115. The dimensions and external appearance of the main building are shown on RPS-MB-GF-A-DR-0104 and RPS-MB-ZZ-A-DR-0111.

3.27 The facility includes a curved roof, referred to as 'curvilinear', incorporating a large sweeping curve across the facility. The curve would start at the bunker hall, cross the bunker and boiler halls and then cover the air-cooled condensers and flue gas treatment area, essentially grouping the buildings together.

3.28 Full details of all the proposed buildings, including floor plans, elevations and materials, are shown on the application drawings and within the Design and Access Statement. These are briefly outlined below (all dimensions have been rounded).

Waste Bunker & Boiler Hall

3.29 The largest component of the proposed new building is located centrally and would contain the waste bunker and the boiler halls. The waste bunker, which would be orientated on a north south-axis, would be approximately 24m in length and 59m in width. The boiler hall will be approximately 59m in length and 30m in width in total and would be orientated on an east-west axis. The waste bunker would have a roof height of approximately 32m, with the boiler hall having a maximum roof height of approximately 36m.

Tipping Hall and Waste Processing Hall

3.30 The second largest enclosed building element would be the tipping hall and the waste processing hall, which will be located to the north and west of the main building. The tipping hall will be located on a north-south axis to the west of the waste bunker and would be approximately 36m in length and 51m in width. It would have a sloped roof, rising to approximately 13m at its highest point adjacent to the waste bunker. The waste processing hall would be located to the north of the waste bunker on an east-west axis and would be approximately 30m in length and 67m in width.

Site Offices and Small Workshop Unit

3.31 The site offices and connected small workshop unit will be located to the front of the main building adjacent to the visitor and staff parking, which in total would be approximately 29m long by 32m wide in the form of an 'L' shape wrapping around the main areas of the facility, at a height of approximately 13m.

3.32 The three-storey office building will house office space, store rooms, a laboratory, washing/changing facilities, kitchens and toilets for operational staff. It will also house a conference/training room for visitors and staff. Visitors are expected from reference plant visitors, local authorities, liaison groups, local schools and colleges and other interested parties.

Turbine Hall & Bottom Ash Area

3.33 The turbine hall would be located to the front of the boiler hall, and would be approximately 37m long by 25m wide by 26m high. To the rear of the boiler hall would be located a bottom ash area, which would be approximately 15m long by 12m wide.

Sprinkler Tanks

3.34 Adjacent to the boiler hall would be located two circular sprinkler tanks, each approximately 10m high by 11m in diameter, and a small pump house building approximately 5m by 5m wide by 3.7m high.

Air Cooled Condenser

3.35 An air-cooled condenser building would be erected to the east of the turbine hall. The condenser building would be 22m in length by 34m in width. It would be raised approximately 8.5 m off the ground on stilts to a maximum height of 26m.

Flue Gas Cleaning Unit

3.36 A flue gas cleaning unit with a stack height of 95m and diameter of 2.5m will be located to the rear of the air-cooled condenser building as shown on drawings RPS-ST-XX-A-DR-0100 and RPS-MB-ZZ-A-DR-0105. The air-cooled condenser units themselves comprise of two separate forms that connect the main building to the stack to comply with strict environmental requirements. The two-flue gas cleaning (FGT) units will be approximately 13m long, 11m wide, 23m high and 17m long, 6.3m in wide, 16m high.

Transformer Building and Storage/Recycling Area

3.37 Also proposed external to the main building would be a transformer building (approximately 10m long by 18m wide to a maximum height of 6m) to the east of site and a covered storage/recycling area to the north east of the site (approximately 44m long by 19m wide to a maximum height of 9m).

Weighbridges and Gatehouse

3.38 Two weighbridges, one for incoming vehicles provided adjacent to the Gatehouse at the front of the site and one for outgoing vehicles, located to the east of the transformer building. The weighbridges will be flush mounted level with the roadway and raise trief kerbs each side. Appropriate road length is provided at both ends of each weighbridge to allow for the alignment of articulated vehicles.

3.39 The Gatehouse is located to the south of the main building and is approximately 12m in length, 4m wide and 5m in height.

Fencing and Security

3.40 A continuous 1.8m high paladin security fence will erected around the site perimeter.

3.41 Additional security will be provided by CCTV, which will use fixed cameras stationed to monitor sensitive areas such as the Waste Reception Hall, feed hopper and ash conveyors. The cameras used will be auto-iris, colour, wide angle and suitable for low ambient lighting levels.

3.42 The detail is something that can be secured via an appropriately worded planning condition if necessary.

Water Usage, Drainage, Treatment and Disposal

Water Usage/Process Waters

3.43 The thermal treatment process is designed as a net consumer of water and, therefore, there is no requirement for regular disposal of any waste water from the combustion process. However, waste water would be created from the process in the following areas:

- Water from the boiler drains;
- Back-flushing water from the de-mineralisation plant;
- Ash discharge occasional overflow; and
- De-aerator occasional overflow.

3.44 It is also expected that a liquid runoff would result from the normal washdown operation of the tipping hall and bunker areas and from surface water on potentially contaminated areas (roads and hardstanding). This would be routed to a waste water pit designed to allow for the waste water to be recycled within the process. If there is excess process water, it would be tankered off-site.

3.45 During construction of the bunker, the integrity of the walls and floor would be verified to ensure water-tightness. Further routine visual checks of the bunker would be undertaken following clearance of wastes to ensure the integrity is maintained.

3.46 The operation of the facility would not require discharge of process effluents to watercourses or the foul sewer. The bottom ash quench system would lead to a net use of water within the process.

Site Drainage

3.47 Details of the proposed drainage strategy are provided on plan reference RPS RPS-EFW-XX-DR-D-0300 and in ES Appendix 10.4 and ES Chapter 10: Hydrology and Flood Risk. The details are summarised below.

Surface Water

3.48 A drainage strategy has been prepared for the proposed development, which seeks to replicate the existing catchment areas as far as practically possible and also seeks to maintain surface discharge rates and volumes.

3.49 The proposed arrangements, which would use existing outfall pipes, are as follows:

- Catchment A: This includes the west and south west external pavements, which would be discharged through a swale prior to discharge into Culvert A (located below the adjacent Network Rail northern line to the west of the site);
- Catchment B: This includes the main building roof, runoff from which would be discharged into Pond B to the north of the site;
- Catchment C: This includes the external pavement areas to the east, which would be drained through a swale prior to discharge into Pond A; and
- Catchment D: This includes the shared access road to the public highway. As the proposed development does not directly pertain to Catchment D; no changes to the existing shared access road drainage are planned as part of this application.

Foul Water

3.50 The proposed foul water scheme would address domestic flows from the office and welfare facilities and also include connections from the storage/recycling area, gatehouse and transformer.

3.51 Wastewater would discharge to surface water; a Bio-disc package treatment plant has been specified to improve the quality of the effluent prior to discharge via the Catchment A outfall into a tributary of Boldings Brook in line with the current sewage effluent discharge consent.

3.52 Based on a population of up to 50 staff per day, the peak rate of foul discharge is estimated at 0.2l/s, with a daily discharge no higher than 2,500 litres per day.

Waste Types, Inputs, Sources and Facility Outputs

Waste Types

3.53 The facility will treat commercial, industrial, household and solid waste and selected combustible waste, complying with the European Waste Codes shown in Appendix E.

Inputs/Capacity

3.54 Overall, the Facility will have a capacity to receive 230,000 tonnes of waste per annum. This is the same as is currently approved for the Waste Transfer Station operations.

3.55 The Thermal Treatment Plant will have a capacity of 180,000 tonnes per annum.

Waste Sources

3.56 It is currently anticipated that all waste arriving at the facility will be primarily from locations within West Sussex, but some may also derive from East Sussex, Surrey and possibly Hampshire.

Other Inputs/Process Consumables

3.57 The following chemicals and process consumables will be imported for use by the plant:

- Lime: approximately 4,000 tonnes per annum
- Activated Carbon: approximately 150 tonnes per annum
- Hydrochloric Acid: approximately 55,000 litres per annum
- Caustic Soda: approximately 70,000 litres per annum
- Fuel Oil: approximately 350,000 litres per annum
- Ammonia: approximately 400,000 litres per annum (diluted) which may be supplied in the form of urea

Residuals: Outputs

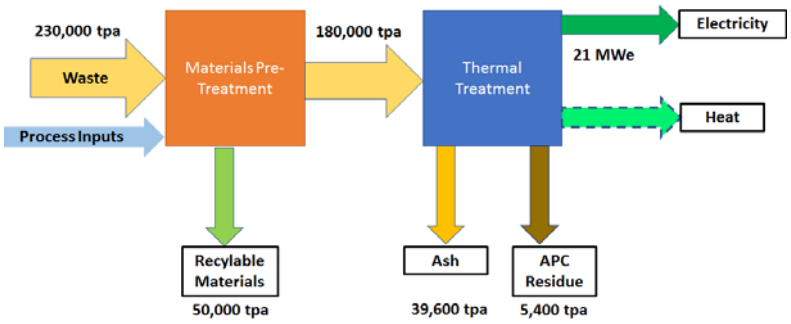
3.58 The following outputs are anticipated from the Facility:

- Electricity: 21MW
- Glass and Inert Aggregates: Approx. 23,500 tonnes per annum
- Ferrous Metals: Approx. 14,000 tonnes per annum
- Non-Ferrous Metals: Approx. 5,400 tonnes per annum
- Air Pollution Control Residues (APCr): Approx. 15,000 tonnes per annum
- Rejects: Approx. 10,000 tonnes per annum

Summary

3.59 A summary of the materials balance for the facility is provided in Figure 3.1 below.

Figure 3.1 Materials Flow Diagram



Utilities

Mains Water Supply

3.60 A potable mains water water supply would be connected to the site. The highest demand would be during the intial fill when the boiler and tanks would be filled. Following that, only make-up water would be required. Arrangements would be made with Southern Water for the supply.

Foul Sewer Connection

3.61 An application would be made to the sewerage undertaker for connection to foul sewer. Discharge to sewer would be confined to foul drainage from the on-site amenities (toilets, shower, kitchens etc).

Electrical Power Import/Export Connection

3.62 Electrical power would be imported and exported through a connection with the Distribution Network Organisation, UK Power Networks.

Monitoring

3.63 The proposed monitoring arrangements are summarised below. These would be agreed in detail through the Environmental Permitting process administered by the Environment Agency.

Bottom Ash Sampling

3.64 Ash samples would be analysed for carbon in ash, heavy metals, dioxins and other prescribed substances with the aim of ensuring that these are at acceptable levels and that the combustion process is operating correctly. Samples would be taken and tested by an independent National Accreditation of Measuring and Sampling (NAMAS) accredited laboratory. The IBA Testing Protocol agreed between the Environment Agency and the Environmental Services Association would be followed and it is expected that the IBA would be deemed non-hazardous.

Flue Gases

3.65 The monitoring of exit flue gases would be accomplished through the use of a continuous emissions monitoring system essentially comprising a sample handling system, analyser unit and logging/reporting equipment. These systems use various analytical technologies to determine the gas composition on a continuous basis.

3.66 The components measured would, as a minimum, be those stipulated within the Environmental Permit issued by the Environment Agency. The Environment Agency currently states that at least particulate, HCl, SO_2, NO, NO_2, VOC, NH_3, CO and O_2 shall be measured continuously. All the species to be identified and monitored would be specified in the permit and data would be made available to the Environment Agency. The CEMS would have an emergency electrical supply with sufficient capacity to maintain the system for at least 30 minutes in the event of a power failure. All monitoring instruments would be regularly calibrated.

3.67 A standby continuous emission monitoring system would also be provided that can be switched into operation on either line in the event of a problem with the duty system or whilst maintenance is taking place.

3.68 Dioxin/furan and heavy metal sampling would be undertaken in accordance with the Environmental Permit. The sampling would be carried out by an independent company/laboratory and is expected to be supplemented by tests carried out by the Environment Agency.

Process Control

3.69 The processes taking place throughout the plant would be monitored by an integrated computer control system, typically comprising Programmable Logic Controllers (PLC) for the furnace and grate, refuse crane operation, gas cleaning system, bag filter, water treatment plant and turbine generator system. These would be integrated into a distributed control system (DCS) operated from a central control room.

Access

3.70 Access to the facility would be taken from the existing entrance point to the site. All vehicles would proceed to the gatehouse and pass over the weighbridge before proceeding into the site. No vehicles would be permitted onto the operational site without passing over the weighbridge or receiving formal authorisation to bypass it. Vehicles would then circulate around the perimeter of the facility in a one way clockwise system. All waste vehicles would pass over the second weighbridge before exiting the site.

On-Site Circulation and Parking

3.71 Staff and visitors would enter the site and turn right before reaching the weighbridge to enter the car park.

3.72 All other vehicles would first proceed to the gatehouse where they would pass over the weighbridge before following the route appropriate to their purpose and then pass over a second weighbridge before exiting.

3.73 An impermeable surface would provide access for use by Heavy Goods Vehicles (HGVs) around the main building, with a parking area for six HGVs provided to the front of the site. Separate parking is also proposed to the front of the site for 31 cars for staff and visitors (plus two disabled spaces). A coach parking space and a covered bike shelter would also be provided for staff and visitors.

Traffic Management

3.74 The capacity of the proposed facility would match the capacity of waste already permitted to be managed at the site, i.e. 230,000 tpa. The facility would not therefore result in any increase in vehicles coming to the site above those already permitted. There would, therefore, be no requirement for any additional waste related HGV movements to transport waste to the site over and above the sites extant consent.

3.75 Total HGV movements at the site would be managed so as to not exceed the numbers permitted by the extant permission. The applicant would be willing to accept a planning condition in this respect.

External Lighting

3.76 Details of the proposed site lighting are provided on plan ref RPS-ST-XX-A-DR-6302. Illumination levels would accord with SLL Lighting Guide 1: The Industrial Environment (CIBSE, 2012).

3.77 The lighting design has been based on the use of appropriate lighting to provide safe working conditions in all areas of the site, whilst minimising light pollution and the visual effect on the local environment. This would be achieved by the use of luminaries that eliminate the upward escape of light.

3.78 Within the internal process areas, outside of normal working hours, operators would be in the control room and thus lighting would generally remain switched off, with the exception of emergency and escape route lighting. The lighting would be controlled with movement detection locally and from the control room and lighting groups would be switched on only as and when necessary.

3.79 Lighting would generally be installed along the walkways and stairways around the process equipment to provide illumination for safe access and operational tasks, and at night would only be switched on when operators need access to a specific level.

3.80 The waste processing hall and bunker area lighting would be switched on permanently as feeding of waste from the bunker to the hopper is essential for the 24-hour operation of the facility. Maintenance on the pre-treatment plant would be carried out overnight and visual spectrum smoke detection would be used as part of the fire protection. These buildings would be covered with solid cladding, which would minimise fugitive light emissions from this area.

3.81 For the administration/visitors' building, lighting would generally be switched off out of normal working hours, unless nightshift operators need specific access to the offices or mess facilities.

3.82 A dimmable lighting scheme is proposed to facilitate lower levels of lighting in the evening to suit low level site activity.

3.83 Aviation warning lights fitted to the stack and the Boiler Building would be medium intensity red steady obstacle lights and would be positioned to be visible from the air.

Appearance and Materials

3.84 The facility would include a curved roof, referred to as 'curvilinear', incorporating a large sweeping curve across the facility. The curve would start at the bunker hall, cross the bunker and boiler halls and then cover the air cooled condensers and flue gas treatment area. The purpose of the curve is to visually bring all of the separate elements of the facility together as one structure and to visually reduce the building's height. The design builds on the reduction in height achieved from sinking the building into the ground.

3.85 The external colours would also aid the visual reduction in height by having the higher elements in lighter greys with a darker grey plinth at a lower level. The offices are in a black finish to provide them with visual presence.

3.86 The design has taken into account the "Guidance on the selection and use of colour in development" (High Weald AONB, 2017). The Western High Weald Woodland and Heath Sub Palette has been selected as the most appropriate for the proposed development. Muted greys, greens and browns

are proposed, as described in the Design and Access Statement accompanying the planning application. This would enable the building to be more readily absorbed, in visual terms, into the landscape.

Landscape Strategy

3.87 The existing soft landscaping scheme on the site would be enhanced through the proposed landscape strategy, which aims to accommodate the ecological constraints surrounding the existing ponds to the north of the site and provide ecological enhancement. Areas of landscape planting would be provided along the full boundary of the site including main entrance.

3.88 Key features of the landscape strategy would include:

- Provision for retention and enhancement of some scrub/trees toward the north of the site;
- Creation of tussocky/wildflower grassland areas; and
- Planting of aquatic/marginal species within the areas of the ponds in applicant's ownership.

3.89 The planting at the front of the building would be a simple palette of predominantly evergreen trees in hedgerows or ground cover. At the internal roundabout, a line of trees within a curved hedgerow would help to screen direct views along the access road from Langhurstwood Road. Trees and hedgerows would provide a softening element to the building in views from the Biffa waste management facility and the Weinerberger Brickworks. To the north of the facility, areas of native woodland containing both evergreen and deciduous species would complement the existing, retained woodland.

3.90 The landscape proposals are shown on drawing RPS-ST-XX-A-DR-0118.

Hours of Operation

Waste Preparation, Processing and Energy Generation

3.91 The proposed development would operate 24 hours per day, 7 days a week except during shutdowns for maintenance activities.

Receipt of Waste

3.92 The hours for waste delivery would remain the same as those currently approved for the Waste Transfer Station operations i.e:

- 07:00 to 18:00 on Monday to Saturday, and

3.93 Deliveries/collections would be scheduled to avoid movements on Sundays, Bank Holidays or Public Holidays. With the prior approval of the local planning authority, occasional waste deliveries and/or collections may take place outside these hours to avoid peak hour traffic flows or to prevent waste being stored within vehicles overnight, at weekends or during holiday periods.

3.94 This matter can be addressed through an appropriately worded planning condition.

Plant Maintenance and Shutdown

3.95 Procedures for checking the efficiency and safety of the plant will be applied during commissioning of the plant at which time it will be fully tested.

3.96 Regular maintenance will ensure high performance from the plant. A comprehensive programme of preventative maintenance will be implemented based on modern condition monitoring techniques. A computerised maintenance management system (CMMS) will be deployed with scheduled maintenance routines with appropriate priority on a daily basis. The plant will shut down for maintenance for around two week each year.

Staffing

3.97 It is estimated that the operation of the site will be undertaken by up to 50 people. Operational staff will include one site manager, six support staff (weighbridge, administration and security), five shift teams for the energy plant of four persons per team, together with a waste operational team of 14 persons. The five shifts are needed to cover 24-hour operation, 7 days per week, using a rotating shift pattern and a spare shift to cover holidays and absences.

3.98 Maintenance will be covered by two shifts of 12 hours per day with a total complement of six persons.

3.99 During the course of any one day the number of people on site will be:

- Site manager: 1
- Support staff: 6
- Plant shift operations: 8
- Maintenance: 6
- Materials recovery & preparation: 12
- Total: 32 staff members.

Substances Used on Site and Storage of Hazardous Materials

3.100 A range of chemical substances and some hazardous materials would be stored on site associated with the thermal treatment process, including lime, activated carbon, hydrochloric acid, caustic soda, boiler water treatment chemicals, fuel oil and ammonia or urea. These materials would be stored in accordance with Environment Agency and Health and Safety Executive guidance.

3.101 The selective non-catalytic reduction system would use either ammonia or urea as the reagent. The reagent and boiler water treatment chemicals would be stored in suitable containers or if diluted, stainless steel bunded storage tanks provided with a pressure relief valve and vent scrubber system, as appropriate. In the event of a spillage, the bunds would retain the liquid. The drainage from waste storage areas would be routed to the wastewater pit.

3.102 Lime and activated carbon would also be used within the flue gas treatment process. Storage would be in dedicated steel silos with equipment for filling from a tanker through a sealed pipe work system. Delivery to the site would be by bulk powder tanker.

3.103 Boiler water treatment chemicals would be used to de-mineralise the boiler water and control water hardness, pH and scaling and would be delivered in sealed containers and stored in the water treatment room.

3.104 Diesel fuel would be used on site for the auxiliary burners and mobile plant and equipment. The fuel would be stored in an underground storage tank. The auxiliary fuel would only be used to start-up the thermal treatment plant and bring it to temperature prior to injection of feedstock.

3.105 There would also be portable bottles of oxygen and acetylene gas stored on site for welding purposes. The gas bottles would be kept secure in a separate compound adjacent to the workshop and only used as necessary.

Hazard Prevention & Environmental Controls

Hazard Prevention

Fire

3.106 A Fire Prevention Plan will need to be submitted to the Environment Agency along with the permit application and insurers will require close scrutiny of fire protection measures. Comprehensive fire protection and detection systems will be installed within the facility to prevent fires occurring. In addition to these systems, standard health and safety procedures will be put in place. These will include measures such as the prohibition of smoking. Flammable liquids and chemicals will be kept in sealed containers/tanks within bunded storage areas.

Accidental Discharges of Water from Circulation System

3.107 The Facility has been designed as a zero-water discharge facility and is set on an impermeable concrete mat. Therefore, no spillages or accidental discharges from the plant are anticipated. However, in the event of such an incident occurring, contaminated water will be diverted to a wastewater pit where it can be held and either reused in the process, treated and discharged to the sewer under a discharge consent or tankered off site for disposal if necessary.

Spillages of Additives

3.108 Liquid additives and chemicals will be stored in sealed tanks within bunded storage areas or equivalent with a capability of containing up to 110% of the capacity of the storage tank. Additives including lime and activated carbon will be fed into the process automatically and there should be no requirement for human intervention in this process. The delivery of all additives will follow standard health and safety, and Control of Substances Hazardous to Health (COSHH) procedures. In the event of a spillage, the bunds will retain all liquids, these will then be pumped into tankers and removed from the site.

Emissions to Air, Odour and Dust Suppression

3.109 The potential impacts of the facility's emissions to the atmosphere are discussed in detail in Chapter 7: Air Quality and Odour.

3.110 Odour, dust and other environmental effects from the facility would be controlled in accordance with the requirements of the Environment Agency guidance.

3.111 Air from the reception hall has the potential to be odorous because of the presence of raw waste. However, containment of dust and odour within this area would be achieved through the maintenance of negative pressure in the hall with odours drawn into the thermal treatment plant and destroyed.

3.112 To achieve this, combustion air fans would draw feed air for the combustion process from the waste reception hall into the furnace to feed the combustion process. As a result, any dust or odour from the tipping, mixing, shredding and furnace loading operations would be retained within the waste reception hall or drawn into the furnace where the odour-carrying gases would be destroyed by combustion, virtually eliminating the possibility of odour detection outside the facility.

3.113 Doors would be fitted with automatic door closures, where required.

Vermin Control

3.114 The main area where vermin could potentially be attracted is the tipping and bunker hall. Waste will not be allowed to accumulate within the tipping hall and the floors will be kept clean through the use of loaders which will collect any spilled waste and deposit it into the waste bunker. In addition to these measures, standard pest control methods will be implemented as part of the Environment Agency permitting procedures.

Plant Maintenance and Shutdown

3.115 Regular maintenance of the facility will be carried out on a daily basis by a permanent team of qualified maintenance engineers. Most maintenance work will be carried out during normal daytime working hours and will conform to a planned maintenance program. For approximately two weeks per year the thermal treatment plant will need to be shut down and allowed to cool to allow personnel access for maintenance and repair, particularly to the furnace and boiler. Every ten years or so it may be necessary to carry out an extended outage to maintain the steam turbine. All maintenance will be carried out to written procedures and recorded in the CMMS. A stock of spares will be held in store within the facility for a rapid replacement of parts that wear out or fail.

Abnormal Operating Conditions

Start Up

3.116 This will take place during commissioning of the facility and after each maintenance shutdown period. Prior to start up all systems and equipment will be checked to ensure they are ready for use. Prior to combustion, auxiliary burners will be used to bring the furnace up to its minimum operating temperature where the combustion gases are at least 850ºC. It is also necessary for the flue gas treatment system to be brought up to its operating temperature before it can be fully effective. Once the appropriate temperatures have been achieved, the feed hopper and grate are activated and waste fed into the furnace.

3.117 Generation of electricity can only begin when sufficient steam at the correct pressure and temperature has been produced. There will be a period of delay between start up and the export of electricity to the local electricity distribution network. During this period the plant will import electrical power through the same cables that are used for export of generated power.

Fire Protection

3.118 The Facility will be equipped with a comprehensive fire protection and detection system and will conform to the required health and safety regulations including procedures in the event of a fire.

3.119 In the bunker hall, remotely operated water cannons will be installed which are capable of covering the entire bunker and feed hoppers. Both an electrical fire pump and a reciprocating engine-driven fire pump will ensure that fire systems are available at all times. The operation of the fire pump will set off an audible alarm in the control room. The firewater tank will be sufficient to provide enough water for at least 2 hour's capacity of the pump, giving time for the emergency services to respond.

3.120 Fire detection and protection systems will be installed in other areas of the plant, the type of which will be dependent on the nature of the process(es) taking place in any given location. Smoke extractors will also be fitted in the boiler house. Fire detection and protection systems will be installed in all electrical and instrument rooms, and will be tested to current standards.

Failure of a Bag Filter

3.121 Failure of a filter bag is an irregular event, which would be detected by monitoring equipment, which sends a warning to the operators in the control room. The failed bag filter is located by a loss of pressure across the filter bag and the faulty bag isolated, and the bag replaced either on-line or during an outage. Individual bag failure will not result in an exceedance of the Environmental Permit limits.

Failure of FGT Equipment

3.122 There are various standby items which can readily be installed to enable the plant to remain operational. If a lime injection system failure were to occur then unspent lime on the filer bags will ensure that the combustion conditions and emissions comply with the Environmental Permit during an emergency shutdown.

Failure of Other Equipment

3.123 The plant will be designed with stand-by systems and redundancy in equipment and this, together with a comprehensive planned maintenance programme to ensure the plant remains operational and in compliance with the Environmental Permit.

Electrical Failure

3.124 In the event of a failure of the power supply connection to the local distribution network, the facility will operate in island mode, during which the turbine generator will directly supply the required power to sustain operation of the Facility until the supply connection is restored. In the event that operation in island mode is not possible, the facility will switch to an uninterruptible power supply and import power from the power supply network, allowing the facility to maintain all critical systems. Under these conditions, a controlled shut down of the facility will be initiated. During this period, all emissions will be monitored and kept within the permitted limits.

Emergency Shutdown

3.125 If any incident endangers or is likely to endanger personnel, or there is a risk of serious damage to the facility, an emergency shutdown will be necessary. Prior to the plant becoming operational,

precise operating procedures for the various possible scenarios according to the likelihood of incidents in the facility, taking into account the safety of personnel and the equipment will be in place.

3.126 In order to rapidly extinguish combustion in an emergency, an emergency shutdown will be initiated or the induced draft fan will be switched off. This would result in the immediate stopping of the combustion air fan, the grate feed and the burner. Staff will ensure that the above actions have been completed, and that the fan intake louvres and dampers are closed (to prevent any natural draught which could leave a fire smouldering on the grate), the air dampers under the grate are closed, and the burner fuel oil safety valves are closed.

Construction

Construction Programme

3.127 It is anticipated that construction of the proposed facility would commence within three years of being granted planning permission and depending upon financing and procurement lead times.

3.128 The construction of the proposed development is estimated to take approximately 34 months, including commissioning and testing. A provisional schedule is outlined below:

- Phase 1 – Site Preparation; approximately 2-3 months
    - Site preparation and construction of the site roads to sub-base level, main drainage runs, temporary car parking and staff facilities. Site preparation works will include site clearance, fencing, bulk excavation, regrading, landscape berming and planting.
- Phase 2 – Construction Works; approximately 23 months
    - Construction works and installation of major process plant, including the construction of buildings, roads completion, drainage and infrastructural works completion.
- Phase 3 – Mechanical & Electrical and Final Works; approximately 8 months
    - Ongoing installation and testing of mechanical and electrical (M&E) equipment and any final completion and finishing works.
- Commissioning and Testing; beginning approximately 12 weeks prior to start-up of operations
    - The certification of various components of the facility by a number of work groups.

Construction Working Hours

3.129 Normal hours of working during construction will be:

- 0730 to 1900 hours Monday to Friday; and
- 0800 to 1600 hours Saturday.

3.130 No construction works will take place on Sundays or Public Holidays. In the unlikely event that construction will be required outside these hours, prior agreement will be made with the Planning Authority, accept in the case of emergency. However, it is envisaged that non-intrusive activities (such as electrical installations and commissioning operations etc) would be undertaken outside of

these hours in order to minimise overall construction time. HGV movements associated with such activities would be insignificant.

Employment

3.131 The level of staff employed during the construction phase will vary throughout the construction period but it is estimated that there will be an average of 50 workers on site at any one time.

3.132 The level of work is anticipated to fluctuate over the course of the construction programme but the peak level of workers is likely to be in months 7 to 9 and will peak at around 182 people.

Plant

3.133 Plant to be used during the construction phase will typically include:

- Tracked Excavators (Excavation and loading)
- Articulated Dump Trucks
- Wheeled Back Hoe Loaders
- Wagons
- Telescopic handlers
- Rollers
- Water Pumps
- Concrete pump
- Generators
- Cement Mixer Truck
- Cranes
- Vibratory Sheet Piling Rig(s)

Construction Access

3.134 Access during the construction phase will be via the existing site access.

Operational Practices and Environmental Management

3.135 A site-specific Construction Environmental Management Plan (CEMP) will be prepared for the proposed development in consultation with, and to the satisfaction of, the Planning Authority. The CEMP will include all the mitigation measures identified in this ES.

3.136 The purpose of the CEMP will be to:

- Provide a mechanism for ensuring that measures to prevent, reduce and where possible offset potentially adverse environmental effects identified in the ES are implemented.

- Ensure that good construction practices are adopted and maintained throughout the construction of the proposed development.
- Provide a framework for mitigating unexpected impacts during construction of the proposed development.
- Provide the necessary assurances to third parties that their requirements with respect to environmental performance will be met.
- Provide a mechanism for ensuring compliance with environmental legislation and statutory consents.
- Provide a framework against which to monitor and audit environmental performance.

3.137 Depending upon the conditions attached to the planning permission for the proposed development it is proposed that either relevant parts of the CEMP or the whole of the CEMP will be submitted to the Planning Authority prior to commencement of works for approval and to demonstrate compliance with any pre-commencement planning condition requirements.

3.138 The approved CEMP will be adhered to and implemented throughout the construction period strictly in accordance with the approved details, unless otherwise agreed in writing by the Local Planning Authority.

4 PLANNING POLICY CONTEXT

Introduction

4.1 The following provides a summary of key relevant planning policy against which this proposal will be determined. This section outlines how this proposal has been designed to be compliant with Section 38(6) of the Planning and Compulsory Purchase Act 2004, which requires development to accord with up-to-date development plan policies unless material considerations indicate otherwise. Detailed discussion regarding the need for and principle of development is provided in Section 5 of this Statement, alongside an assessment of the proposal against national and local policy in Section 6, concluding with a summary demonstrating the proposals' policy compliance.

Planning Policy Context

4.2 The plan-led approach to development, as enshrined in Section 38(6) of the Planning and Compulsory Purchase Act 2004, requires development proposals to accord with the Adopted Development Plan unless material considerations determine otherwise.

4.3 In accordance with S38(6) of the Planning and Compulsory Purchase Act 2004, the Adopted Development Plan, in the context of this planning application, comprises:

- West Sussex Waste Local Plan (2014); and
- Horsham District Planning Framework (2015).

4.4 The term 'material considerations' is wide ranging, but includes national and emerging planning policy documents. Other policies and documents considered to be material to this application include:

- National Planning Policy and Guidance:
    - EU Waste Framework Directive 2008/98/EC;
    - Waste Management Plan for England 2013; The National Planning Policy Framework (NPPF) 2012;
    - Overarching National Policy Statement for Energy EN-1 (NPS EN-1);
    - National Policy Statement for Renewable Energy Infrastructure EN-3 (NPS EN3);
    - Planning Practice Guidance (2014);
    - National Planning Policy for Waste (NPPW), October 2014; and
    - Planning Practice Guidance on Waste (PPGW) 2014.
- Local Planning Policy and Guidance:
    - West Sussex Waste Local Plan Sustainability Appraisal 2013

- West Sussex Joint Materials Resource Management Strategy 2005 to 2035 (adopted 2006); and

4.5 West Sussex Joint Minerals Local Plan and Waste Local Plan Monitoring Report 2015/2016.The following part of this section identifies the Development Plan policies and other material considerations relevant to this Application. An assessment of the proposed development against the determining issues from these policies is undertaken in Sections 5 and 6.

Adopted Development Plan

West Sussex Waste Local Plan (2014)

4.6 The West Sussex Waste Local Plan (WSWLP) was adopted in 2014, covering the period to 2031 and provides the most up to date land-use policies for waste in the County. The Plan includes strategic waste site allocations which seek to ensure that new waste development is distributed according to the overriding spatial strategy. Specific development principles have been identified for each allocated site to ensure that key planning issues are fully addressed when sites are developed. The Plan also includes development management policies to guide planning applications; these policies seek to ensure that waste development will not have an unacceptable impact on the environment or local amenity.

4.7 Key strategic objectives of the Plan are to achieve zero waste to landfill by 2031 and "net self-sufficiency" in waste management terms in the County.

4.8 Para. 1.2 of the WSWLP identifies the "Challenge" during the Plan period. Although there has been progress in the County in reducing waste and re-using/recycling waste consistent with the principles of Waste Hierarchy (See National Policy Section) there is still a need to introduce new more sustainable waste management practices to reduce the *"heavy dependence on landfill*" (para.1.2.1 WSWLP).

Waste Management Capacity Shortfall

4.9 The Plan highlights that there is insufficient capacity at existing waste management facilities in the County to maximise recovery of waste via recycling, composting and energy generation. (para 1.2.2 WSWLP). More facilities are required to enable a more sustainable waste management infrastructure.

4.10 The waste contracts procured by the County Council for the management of municipal solid waste (MSW) have led to the delivery of more sustainable waste management facilities. The Recycling & Waste Handling Contract with Viridor (known as Recycle for West Sussex) allows the collection of municipal recyclates which are managed at the Ford Materials Recycling Facility (MRF) in the south of the County; materials are separated, baled and exported to other facilities for re-processing into new goods.

4.11 The Materials Resource Management Contract (MRMC) was signed with Biffa in 2010; A Mechanical Biological Treatment facility (MBT) was constructed under this contract, located at Brookhurst Wood, with the planned capacity to manage 310,000 tonnes per annum (tpa) residual municipal waste (waste which cannot be recycled or re-used) creating a refuse derived fuel (RDF) which would be transported to an energy from waste facility to allow energy recovery, thereby ensuring that waste is

diverted from landfill. The MBT has been constructed but is not currently operating at the planned capacity. The revised full operational capacity is now 243,000 tpa. It is understood that 43,000 tonnes of waste were processed by the facility during the period October 2016 – January 2017[1]. In December 2017 WSCC announced that it was awarding a 5-year extendable contract to Britaniacrest and its partner, Seneca for disposal of the refuse derived fuel produced by the MBT, which will be exported to Germany and combusted within a thermal treatment plant.

4.12 Although progress has been made in respect to sustainable waste management facilities for the MSW stream, the Plan recognises that there is a need for facilities which can manage other waste streams sustainably, for example, commercial and industrial waste (C&I). Such facilities are considered essential to ensure a more sustainable waste management approach in the County (para. 2.10.3). New private/commercial facilities are considered necessary to achieve net self-sufficiency in sustainable waste management in West Sussex (para. 2.10.3).

4.13 The Plan identifies that "Other Recovery (including Treatment)" facilities are required in order to achieve the objectives of the Plan. Para. 2.10.10 states that there is a need for an additional 0.07mtpa of capacity to deal with C&I waste. If higher waste generation growth rates occur this could rise to a shortfall of 0.09mtpa capacity.

Strategic Waste Site Allocation

4.14 The Plan has identified strategic waste site allocations in pursuit of the Plan's strategic objectives and to address the shortfall in sustainable waste management capacity. These sites are considered acceptable in principle for waste development subject to consideration of detailed matters at the planning application stage.

4.15 The sites have been assessed against criteria to ensure that they are well related to waste arisings, they are available for waste uses, accessible and that sensitive environments/landscapes are avoided.

4.16 **Policy W10** identifies 4 site allocations to address the shortfall in transfer, recycling and recovery capacity in the County. Brookhurst Wood is one of the sites included in this policy (Policy Map 4).

4.17 **Policy W10 (c)** states that development on these allocated sites must accord with policies of the WSWLP and satisfactorily address the "development principles" for the site as set out in the supporting text of the policy.

4.18 Para. 7.3.3 states that, wherever possible, proposed thermal treatment facilities should come forward with a scheme that combines the generation and distribution of heat and power.

4.19 Consistent with national planning policy, para. 7.3.5 clarifies that there will be no requirement for applicants to demonstrate a quantitative or market need for a proposal on a site allocated in **Policy W10**.

[1] Biffa Brookhurst Wood Local Liaison Group - Notes of Meeting 18th January 2017.

Brookhurst Wood Site - Development Principles

4.20 The development principles for Brookhurst Wood site, set out in para. 7.3.15 of the WSWLP, need to be addressed in any development proposal and are summarised as follows:

- Development of site to be comprehensive;
- Requires assessment of protected species, industrial archaeology, impact on water and amenity, identifying mitigation measures where appropriate;
- Assessment of potential cumulative impacts of traffic, noise and odour in the local environment, identifying mitigation measures, taking account of existing, permitted, allocated or proposed development within the wider area;
- Development must comply with the Aerodrome Safeguarding requirements;
- Assess the potential to use rail for the movement of waste; and
- Assess the impact of HGVs on highway capacity and road safety, including at the Langhurstwood Road junction and on the A264, A24, A23/M23, identifying mitigation measures.

Potential Allocated Site Contribution to Waste Management Shortfall

4.21 **Table 4** of the WSWLP indicates the potential contribution that this site allocation will make to addressing the shortfall in waste management capacity; 0.30mtpa on a 6.5 ha site.

Development Management

4.22 Chapter 8 of the Plan sets out policies that ensure that waste proposals do not have an unacceptable impact on amenity, character and the environment of the County, in line with all the Strategic Objectives of the plan.

4.23 **Policy W11 Character** seeks to protect special landscape and townscape character of West Sussex, in line with **Strategic Objective 8**. Proposals for waste development will only be permitted if they do not have an unacceptable impact on the character, distinctiveness and sense of place of the different areas of the County. Proposal should retain important characteristics and features and where possible development should reinforce the main natural character areas.

4.24 **Policy W12 High Quality Development** requires waste development to be of a high quality, taking account of the need to integrate into and enhance where possible adjoining land-uses to minimise potential conflicts. Developers should also have regard for the local context, including local traditions, character, topography, landscape and skyline. Consideration should be given to views inside and outside of the site and the use of materials and building styles. Proposals must maximise water efficiency, measures to reduce greenhouse gases, and potential for renewable energy. New development must be resilient against the impact of climate change.

4.25 **Policy W13 Protecting Landscapes** states that proposals located outside the South Downs National Park and Area of Outstanding Natural Beauty (AONB) will be permitted provided they do not undermine the designations.

4.26 **Policy W14 Biodiversity and Geodiversity** seeks to ensure that the natural ecological and geological assets of the County are afforded adequate protection from new waste development.

4.27 **Policy W15 Historic Environment** ensures that new waste development does not adversely affect heritage assets of the County.

4.28 **Policy W16 Air, Soil and Water** states that proposals for waste development will be permitted provided that there is no unacceptable impact on local air, soil and water quality.

4.29 **Policy W17 Flooding** ensures that new development will not increase the risk of flood events. Proposals must include, where appropriate, sustainable drainage systems.

4.30 **Policy W18 Transport** requires, where practical and viable, that proposals make use of rail. Development will only be permitted where transport links are adequate and vehicles generated from the development do not have an unacceptable impact on local amenity, character or environment. Where the need for road transport is demonstrated, materials must be transported using the Lorry Route Network. Increased vehicle movements must not have an unacceptable impact on local highways capacity and the safety of road users should not be adversely affected. Proposals must be designed with adequate lorry turning space.

4.31 **Policy W19 Public Health and Amenity, in line with Strategic Objective 13,** outlines that any emission from the development (lighting, noise, odour etc.) should be controlled to avoid adverse impact on public health and amenity. Public rights of way should be safeguarded. Where necessary a site liaison group should be established to allow communication between the site operator and local community.

4.32 **Policy W21 Cumulative Impacts** notes that development will be permitted only where the proposed development combined with other existing/ planned developments do not result in an unreasonable level of disturbance to the local environment. Phasing agreements may be sought to minimise adverse impacts.

4.33 **Policy W22 Aviation** allows waste development to be permitted only where it does not have an adverse effect on the operational integrity of aviation facilities.

4.34 **Policy W23 Waste Management** within Development requires developers to manage waste sustainably at all stages of the development.

Horsham District Planning Framework (2015)

4.35 The Horsham District Planning Framework (HDPF) was adopted in November 2015 and forms the development plan for Horsham District for the period to 2031, seeking to deliver socio-economic and environmental need.

4.36 The Framework does not include specific waste policies which are a matter for the Waste Local Plan and West Sussex Waste Planning Authority (County Council). However, other policies of the Framework which may be considered relevant to this proposal relate to economic development, conserving and enhancing the natural and built environment, climate change, infrastructure, transport and healthy communities.

4.37 A key strategic objective of the Framework is maintaining a vibrant economy. Horsham has an ageing population, with high house prices making it difficult to retain young people and for businesses to attracted skilled employees (Chapter 5 of the Framework).

4.38 Chapter 9 of the Framework highlights that Horsham has a high-quality environment which contributes to high quality of life for those living in the District. Increased traffic has the potential to impact on this quality and there are air quality management areas designated in the District (Storrington and Cowfold, located in the southern area of the District). Impacts of traffic arising from new development need to be considered.

4.39 The Framework recognises that there is scope to enhance sites in the District, through redevelopment. The District is described as predominantly rural with a range of small towns and villages with individual character; new development should be sensitive to local character.

4.40 **Strategic Policy 2 Strategic Development** and the **Key Diagram** of the Framework identify a strategic allocation including employment north of the Horsham Town, east of the application site. The strategic development will comprise at least 2,500 dwellings and other development and associated infrastructure (as detailed in Policy SD1).

4.41 **Strategic Policy 3 Development Hierarchy** identifies Horsham as the main town in the District which provides a large range of employment services and other facilities. **Strategic Policy 5 Horsham Town** promotes the prosperity of Horsham which has a primary economic and cultural role in the District.

4.42 **Strategic Policy 24 Environmental Protection** seeks to protect the high quality of the District's environment, requiring new development to minimise emission of pollutants including noise, odour, air and light pollution. Developers must address land contamination where appropriate, maintain or improve quality of water courses, minimise air pollution and greenhouse gas emissions in order to protect human health and contribute to the implementation of local air quality action plans.

4.43 **Strategic Policy 25 The Natural Environment and Landscape Character** has similar objectives to policies **W11, W13 and W14 of the WSWLP** (see above), but also makes specific reference to the maintenance and enhancement of Green Infrastructure Network. **Policy 31 Green Infrastructure and Biodiversity** supports development which enhances the existing network, highlighting that new development will be required to enhance biodiversity, creating and managing new habitats where appropriate.

4.44 **Strategic Policy 32 The Quality of Development** requires high quality design for new development based on a clear understanding of local, physical, social, economic, environmental and policy context for development. Development should be attractive, functional, accessible, safe and adaptable, complementing local distinctiveness and heritage of the District. The design should optimise the development site.

4.45 **Policy 33 Development Principles** sets out specific requirements for new development to ensure the protection and enhancement of the local environment. These include making efficient use of land, redeveloping land as a priority, designing development to minimise impacts on local amenity, ensuring high quality design which is sympathetic to the site setting and surrounding land-uses and using high standards of building materials.

4.46 **Policy 34 Cultural and Heritage Assets** seeks to protect such assets but also requires new development to reinforce the special character of the District's historic environment.

4.47 **Strategic Policy 35 Climate Change** supports development which clearly contributes to mitigating and adapting to the impacts of climate change and meeting the District's carbon reduction targets.

Proposals should include measures to reduce the amount of biodegradable waste to landfill, improve energy efficiency and use decentralised, renewable and low carbon energy supply.

4.48 **Strategic Policy 36 Appropriate Energy Use** sets out an energy hierarchy for new development to increase renewable energy generation in the District. The Authority is seeking to secure district heating in strategic development locations.

4.49 **Strategic Policy 38 Flooding** sets out the need for a sequential approach to flood risk management. Where there is the potential to increase flood risk, proposals must incorporate the use of SuDS where technically feasible, or incorporate water management measures which reduce the risk of flooding and ensure flood risk is not increased elsewhere**.**

National Planning Policy and Guidance as a Material Consideration

EU Waste Framework Directive 2008/98/EC

4.50 Directive 2008/98/EC sets the basic concepts and definitions related to waste management, including definitions of waste, recycling and recovery. The Directive lays down some basic waste management principles: it requires that waste be managed without endangering human health and harming the environment, and without risk to water, air, soil, plants or animals, without causing a nuisance through noise or odours, and without adversely affecting the countryside or places of special interest.

4.51 The Directive introduces recycling and recovery targets to be achieved by 2020: 50% preparing for re-use and recycling of certain waste materials from households and other origins similar to households, and 70% preparing for re-use, recycling and other recovery of construction and demolition waste. The Directive requires that Member States adopt waste management plans (Article 28) and follow the Waste Hierarchy (see below).

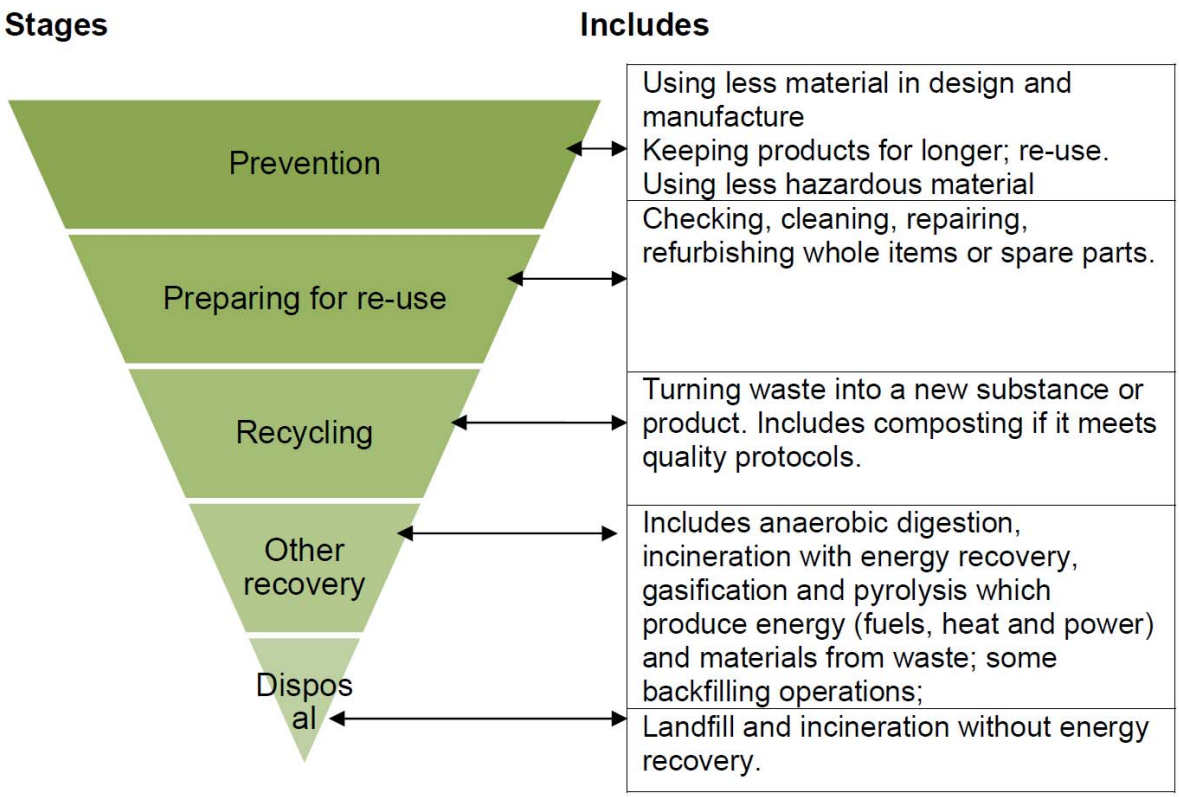
Waste Management Plan for England 2013

4.52 The Waste Management Plan for England is a high-level document which is non–site specific. Together with local authorities' local waste management plans this fulfils the mandatory requirements in Article 28 of the revised Waste Framework Directive (WFD) requiring Member States to establish one or more waste management plans.

4.53 The key aim of the waste management plan for England is to set out working towards a zero waste economy in which material resources are reused, recycled or recovered wherever possible and only disposed of as the option of last resort. This means using the "waste hierarchy" as a guide to sustainable waste management. The Plan recognises that the objectives of the Directive cannot be delivered by Government alone. It requires action by businesses, consumers, householders and local authorities.

4.54 In England, the waste hierarchy is both a guide to sustainable waste management and a legal requirement, enshrined in law through the Waste (England and Wales) Regulations 2011. The hierarchy gives top priority to waste prevention, followed by preparing for reuse, then recycling, other types of recovery (including energy recovery), and last of all disposal (e.g. landfill).

Figure 4.1 The Waste Hierarchy



4.55 The dividends of applying the waste hierarchy will not just be environmental. We can save money by making products with fewer natural resources, and we can reduce the costs of waste treatment and disposal.

4.56 As set out in the plan the Government supports efficient energy recovery from residual waste – of materials which cannot be reused or recycled - to deliver environmental benefits, reduce carbon impact and provide economic opportunities.

National Planning Policy Framework 2012

4.57 The National Planning Policy Framework (NPPF) sets out the Government's planning policies for England and how these are expected to be applied (para. 1) and is therefore a material consideration in planning decisions.

4.58 Para. 6 of the NPPF highlights that the purpose of the planning system is to contribute to the achievement of sustainable development. The policies in paragraphs 18 to 219 of NPPF, taken as a whole, constitute the Government's view of what sustainable development in England means in practice for the planning system.

4.59 Central to the NPPF is the presumption in favour of sustainable development and the need for the planning system to support economic growth. Para. 14 sets out the presumption in favour of sustainable development and the application of the policy for decision making, it states:

"At the heart of the National Planning Policy Framework is a presumption in favour of sustainable development, which should be seen as a golden thread running through both plan-making and decision-taking".

For decision taking this means:

- *Approving development proposals that accord with the development plan without delay; and*
- *Where the development plan is absent, silent or relevant policies are out of date, granting planning permission unless:*
  - *any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole; or*
  - *specific policies in this Framework indicate development should be restricted."*

4.60 Para. 19 highlights the Government's commitment to ensuring that the planning system actively supports sustainable economic growth and that it does not act as an impediment to sustainable growth. The NPPF places significant weight on the need to support economic growth.

4.61 Para. 20 of the NPPF states that *"local planning authorities should plan proactively to meet the development needs of business and support an economy fit for the 21st century".*

4.62 Also running through the NPPF is the promotion of healthy communities, paragraph 69 states that "*the planning system can play an important role in facilitating social interaction and creating healthy, inclusive communities".*

4.63 Para 120 of the NPPF states that "*To prevent unacceptable risks from pollution and land instability, planning policies and decisions should ensure that new development is appropriate for its location. The effects (including cumulative effects) of pollution on health, the natural environment or general amenity, and the potential sensitivity of the area or proposed development to adverse effects from pollution, should be taken into account."*

4.64 Para. 122 of the NPPF states that *"local planning authorities should focus on whether the development itself is an acceptable use of the land, and the impact of the use, rather than the control of processes or emissions themselves where these are subject to approval under pollution control regimes. Local planning authorities should assume that these regimes will operate effectively".*

4.65 The NPPF does not contain specific reference to waste as national waste policy is published alongside the National Waste Management Plan for England 2013. However, local authorities preparing waste plans and making decisions on waste applications should have regard to policies so far as they are relevant, including paras. 57, 60 & 61 relating to high quality, innovative design, paras 123 – 125 regarding noise, air and light pollution impacts. Paragraphs 99 to 108 of the NPPF outline the development requirements in terms of flood risk, water quality and resources and the impact of climate change.

4.66 Chapter 11 of the NPPF 'Conserving and enhancing the natural environment' contains provisions for ensuring that planning can be sustainable from an environmental perspective. Paragraph 109 explains that the *"planning system should contribute to and enhance the natural and local environment."* Paragraph 110 requires local plans to minimise adverse effects on the local and natural environment and that *"plans should allocate land with the least environmental and amenity*

value, where consistent with other policies" in the NPPF. The NPPF, at paragraph 111, requires that *"planning policies and decisions should re-use land that has been previously developed (brownfield land), provided that it is not of high environmental value."*

National Planning Policy Statements

4.67 Whilst NPSs are at the heart of the planning regime for Nationally Significant Infrastructure, they are recognised as a material consideration in decisions on planning applications, as outlined at both para 3 of the NPPF and within NSP EN1 itself.

4.68 NPS EN-1 sets out the policy framework for assessing the generic impacts of all types of energy infrastructure, whereas NPS EN-3 identifies certain topic-specific policy considerations that the decision maker must give due regard.

Overarching National Policy Statement for Energy EN-1 (NPS EN-1)

4.69 Part 3 of NPS EN1 establishes an indisputable policy need for all types of energy infrastructure in order to achieve energy security and reducing carbon emissions (para. 3.1.1). It also sets out that without significant amounts of new large-scale energy the Government's energy and climate change objectives cannot be fulfilled (para. 3.2.3).

4.70 The UK is identified as needing to diversify and decarbonise electricity generation, and the Government is committed to increasing dramatically the amount of renewable generation capacity. It is recognised that in the short to medium term this new capacity is likely to increasingly include plant powered by the combustion of biomass and waste (para. 3.3.10).

4.71 In terms of renewable electricity generation, although the Government does not consider it appropriate for planning policy to set targets for or limits on different technologies (para. 3.1.2) the UK Renewable Energy Strategy commits to sourcing 15% of the UKs total energy from renewable sources by 2020 (para. 3.4.1), and the large-scale deployment of renewables will help the UK reduce its emissions of carbon dioxide by over 750millions tonnes by 2020 (para. 3.4.2) with energy from waste identified as a means to reduce the amount of waste going to landfill in accordance with the Waste Hierarchy and to recover energy from that was as electricity or heat (para. 3.4.3).

4.72 Energy from Waste proposals can be used to generate 'dispatchable' power which would provide peak load and base load electricity on demand. It is recognised that as more intermittent renewable electricity comes onto the UK grid, the ability of energy from waste to deliver predictable, controllable electricity is increasingly important in ensuring the security of UK supplies (para. 3.4.4).

4.73 Section 5.9 of the NPS EN,1, discusses the generic landscape and visual impacts that might result as from energy infrastructure. The NPS recognises that the impacts will vary, depending on the type, location and context of the development (paragraph 5.9.1).

4.74 Paragraph 5.9.2 notes that cooling towers, exhaust stacks and the associated steam plumes have the most obvious impact on the landscape. The aim of the development is to minimise harm of the development on landscape and visual resources (paragraph 5.9.8).

4.75 As a development outside, but potentially within sight of, a nationally designated landscape, paragraph 5.9.12 of the NPS is relevant. Any large energy developments should aim not to compromise the purpose of the designation of the nationally designated landscape. Such projects

should be designed sensitively, given locational and operational constraints. However, paragraph 5.9.13 states that "the fact that a proposed project will be visible from within a designated area should not in itself be a reason for refusing consent."

4.76 Paragraph 5.9.15 recognises that the scale of such projects means that they are often visible within many miles of the location. The judgement to be made is "whether any adverse impact on the landscape would be so damaging that is not offset by the benefits (including need) of the project." The NPS explains that the project should be designed carefully, taking into account the effects on landscape and taking into operational and other relevant constraints and should "minimise harm to the landscape, including by reasonable mitigation" (paragraph 5.9.17).

4.77 Different types of mitigation are explored in paragraphs 5.9.21 to 5.9.23. These include reducing scale, appropriate siting, design (including colours and materials) and landscaping schemes where possible. Offsite planting may be appropriate to mitigate long distance views

4.78 Paragraph 4.8.6 (NPS EN-1) specifically identifies that applicants should have regard to climate change and should assess the resilience of their project to climate change. Paragraph 2.4.1 of NPS EN-5 specifically identifies the potential issues applicants should consider in terms of resilience to climate change.

National Policy Statement for Renewable Energy Infrastructure EN-3 (NPS EN3)

4.79 Section 2.5 of NPS EN3 sets out the national policy in relation to renewable energy projects using biomass and waste combustion, including waste and residue management. It explains that the recovery of energy from the combustion of waste, where is accordance with the Waste Hierarchy, will play an increasingly important role in meeting the UKs energy needs and that where the waste burned is deemed renewable, this can also contribute to meeting renewable energy targets (para. 2.5.2).

4.80 Waste combustion plans are unlike other electricity generating power station in that they have two roles: the treatment of waste and the recovery of energy (para. 2.5.18).

4.81 Specific considerations for energy from waste facilities are that "the proposed generating station is of appropriate quality and minimises adverse effects on the landscape character and quality" (paragraph 2.5.47). Paragraph 2.5.50 notes that good design, including materials, will go some way to mitigating adverse landscape and/or visual effects. Paragraph 2.5.51 notes that "mitigation is primarily achieved through aesthetic aspects of site layout and building design including size and external finish and colour of the landscape to minimise intrusive appearance in the landscape as far as engineering requirements permit."

4.82 With regards to landscape treatment applicants should seek to visually enclose facilities "at low level as seen from the surrounding external viewpoints. This makes the scale of the generating station less apparent, and helps conceal its lower level, smaller scale features. Earth bunds and mounds, tree planting or both may be used for softening the visual intrusion…" (paragraph 2.5.52).

National Planning Policy for Waste (NPPW), 2014

4.83 The National Planning Policy for Waste (NPPW) was adopted in 2014, setting out detailed waste planning policy which seeks to deliver the Government's aims and the objectives of the Waste Management Plan for England (WMPE) (December 2013). The NPPW replaces Planning Policy

Statement 10 and local authorities are required to take account of the document when preparing local plans and making planning decisions.

4.84 The NPPW requires planning authorities to plan provision for new capacity based on the best available data, avoiding *"spurious precision"* (para. 2). Authorities should work jointly, taking account of waste arising across neighbouring waste planning areas and recognising the positive contribution that waste management can bring to sustainable communities.

4.85 When preparing local plans, the NPPW confirms that authorities should (paras. 3 – 4):

- drive waste up the Waste Hierarchy;
- identify the tonnages and percentages of municipal, and commercial and industrial, waste requiring different types of management in their area over the period of the plan;
- consider additional capacity of more than local significance (i.e. that is of greater than local scale) and reflect any requirement for waste management facilities identified nationally;
- consider any need for waste management arising in more than one waste planning authority area but where only a limited number of facilities would be required;
- consider the extent to which the capacity of existing operational facilities would satisfy any identified need;
- identify types of facilities required and allocate sites without stifling innovation;
- consider opportunities for on-site management of waste where it arises;
- plan for facilities to serve catchment areas large enough to secure the economic viability of the plant; and,
- consider a broad range of locations including industrial sites, giving priority to previously developed land."
- give priority to the re-use of previously-developed land, sites identified for employment uses, and redundant agricultural and forestry buildings and their curtilages.

4.86 The NPPW advises that *"when determining planning applications, authorities should only expect applicants to demonstrate quantitative or market need for new facilities where the proposals are not consistent with an up-to-date local plan"*

4.87 It also advises, at para 7 that, waste planning authorities should **"**concern themselves with implementing the planning strategy in the Local Plan and not with the control of processes which are a matter for the pollution control authorities. Waste planning authorities should work on the assumption that the relevant pollution control regime will be properly applied and enforced".

4.88 Appendix B of the NPPW sets out criteria for selecting a suitable site for a waste facility in the preparation of Local Plans and in the determining of planning applications. The criteria include:

"a. protection of water quality and resources and flood management….
b. land instability…
c. landscape and visual impacts…

d. nature conservation…
e. conserving the historic environment…
f. traffic and access…
g. air emission, including dust…
h. odours…
i. vermin and birds…
j. noise, light and vibration…
k. litter…
l. potential land use conflict…"

Planning Practice Guidance 2014;

4.89 On 6 March 2014, the Department for Communities and Local Government (DCLG) launched its planning practice guidance web-based resource making planning practice guidance available entirely online. Ultimately the interpretation of legislation is for the Courts but the guidance is intended to assist practitioners Within the section on Waste the guidance sets out what matters come within the scope of 'waste development'. The non-exhaustive list includes energy from waste incineration (ref ID 28-002).

4.90 The NPPG, as well as other national guidance and legislation, includes information of specific relevance to topics as set out in the ES. Relevant legislation, policy and guidance for such is outlined within the topic chapters of the ES and is not reiterated in detail here.

Other Material Considerations

West Sussex Waste Local Plan Sustainability Appraisal Report 2013

4.91 A sustainability appraisal (SA), incorporating the requirements of the SEA Directive, was required to inform the preparation of the WSWLP. The SA carried out an assessment of the sites under WSWLP Policy W10 against the appraisal objectives (A – P) which assessed aspects such as the protection and enhancement of health and wellbeing, landscape and townscape character, historic environment and biodiversity; to make the best use of previously developed land; the promotion of recovery value from residual waste, no increase in flood risk and to reduce air pollution. The summary for Brookhurst Wood states (Page 57):

"The site is well-located to manage waste due to its proximity to waste arisings in the north of the county, close to the Lorry Route Network and it has potential to move waste by rail (subject to viability assessment). Although there would be some negative impacts in the short term during the construction period, development of the site is considered to bring overall benefits in the medium to long term as it would benefit from co-location of other waste facilities and replace existing derelict buildings. A transport assessment at application stage should assess impacts on the residents of Langhurstwood Road, particularly due to potential cumulative impacts from other waste uses. Routing should also be via the south and impacts on the A264 and junction 11 of M23 need to be considered. The site is adjacent to a SSSI, Ancient Woodland and there may be protected specifies (Great Crested Newts) which would require survey and mitigation. There are also industrial buildings on the site therefore an industrial archaeological impact assessment would be required at application stage."

4.92 Mitigation Measures were recommended for any future application:

- Assessment and possible mitigation of protected species;
- Archaeological assessment and possible mitigation;
- Assessment and possible mitigation of impact on the water environment;
- Assessment possible and mitigation of impact on residential amenity;
- Assessment and possible mitigation of cumulative impacts of traffic;
- Compliance with Aerodrome safeguarding.

4.93 The SA confirmed that the cumulative effects of allocated sites under WSWLP Policy W10 is mainly positive in terms of making the best use of previously developed land (page 50).

West Sussex Joint Materials Resource Management Strategy (2006)

4.94 The Joint Municipal Waste Strategy sets out the County's strategy for managing household waste to 2036. The objectives of the Strategy are consistent with European and national sustainable waste management principles which seek to reduce waste and manage waste close to where it arises and as far up the waste hierarchy as possible. The Joint Materials Resource Management Strategy (JMRMS) sets out an action plan to achieve these objectives. Both documents have guided the procurement of waste contracts which have increased recycling rates and delivered waste management facilities which help manage municipal waste in a more sustainable manner.

4.95 West Sussex County Council in its capacity as Waste Authority is responsible for the treatment and disposal of approximately 400,000 tonnes of municipal solid waste (MSW). The Authority has already procured two long term contracts:

- **Recycling and Waste Handling Contract (RWHC)** with Viridor, which commenced 2004. Mixed household recycled materials are processed at the Ford Materials Recycling Facility (MRF) where they are sorted, baled and transported to facilities for manufacturing into new goods. West Sussex current household recycling rate is 41.6% as a result of the Contract.
- **Materials Resource Management Contract (MRMC)** was awarded to Biffa in 2010. The Contract required the construction of a mechanical biological treatment facility (MBT) which will shred residual MSW which would normally be disposed of to landfill. The process creates refuse derived fuel (RDF) which will be transported to an energy recovery facility. Further information about the facility is provided in paragraph 4.11 above.
- **Refuse Derived Fuel (RDF) contract** was awarded by WSCC to Britaniacrest in partnership with Seneca in December 2017.

West Sussex Joint Minerals Local Plan and Waste Local Plan Monitoring Report 2054/16

4.96 The Monitoring Report outlines progress on implementing the objectives and policies of the West Sussex Waste Local Plan (WSWLP). The report highlights that the RWHC and MRMC have

impacted on the number of waste management facilities in the County, with the provision of household recycling centres, the Ford MRF operated by Viridor and the MBT operated by Biffa.

4.97 Overall waste arisings in 2015/16 in the County were 2.15 million tonnes which is 10% higher than the estimates assumed for the preparation of the WSWLP. Although new facilities have improved the waste infrastructure of West Sussex, further capacity is still required in order to meet shortfalls set out in Policy W1 of the WSWLP and the aspirations of achieving “zero waste to landfill by 2031”. The report summarises in Section 5 that due to the revised forecasted waste arisings to 2031, further waste management capacity beyond that identified in the adopted WSWLP will be required.

4.98 Para. 5.4.1 indicates that the total MSW arising in the County in the period 2015/16 was 447,000t, which is a 44,000t increase on the figure forecast for this period in the WSWLP. 164,000 t of this waste was disposed of to landfill and 73,000t was sent for energy recovery.

4.99 Para. 5.4.2 states that C&I waste arisings forecasts have been increased by 3%. This amounts to an increase of 67,000 tonnes of waste than that assumed in the WSWLP (para 5.4.3).

4.100 Table 13 of the report summarises the estimated annual capacity of existing and planned sites (excluding landfill) within the County. Total capacity (existing and planned) of treatment and recovery facilities in 2015/16 amounts to 390,000 t to be managed in the MBT and AD (MSW and some C&I waste) and 190,000 of C&I Recovery.

5 PRINCIPLE OF DEVELOPMENT AND NEED

Introduction

5.1 The proposed development is a Recycling Recovery and Renewable (3Rs) Energy facility which has the capacity to process 230,000 tpa of residual commercial & industrial and (C&I) municipal solid waste (MSW), and diverting over 95% of it from landfill, whilst exporting 21 MW of renewable energy to the local distribution network and potentially providing heat for local users. This proposal will allow the comprehensive redevelopment of the site; incorporating a thermal treatment plant with the already consented Waste Transfer/Materials Recycling Facility (MRF) operations (Planning ref. WSCC/018/14/NH), to provide much needed sustainable waste management infrastructure to serve West Sussex and the surrounding area.

5.2 This Section outlines the planning case for this development in the context of the Adopted Development Plan and relevant material considerations. This includes a high-level review of the strategic need for this facility and a summary of how the proposal has been formulated to address the specific development principles for this site as identified in the adopted West Sussex Waste Local Plan (WSWLP).

5.3 The other main policy considerations pertinent to the proposal relate to the detailed assessment of potential environmental impacts arising from the development (including landscape & visual, traffic, air quality, noise, archaeology and cultural heritage, hydrology and flood risk, hydrogeology and ground conditions, and ecology). Consideration of all potential significant impacts is provided briefly in Section 6 and reported comprehensively within the submitted Environmental Statement (ES).

Need for Development

5.4 National Planning legislation sets out the recycling and recovery targets for England, fulfilling the EU Waste Framework Directive. At the high level, this proposal clearly assists in meeting these targets by 2020 and working towards the zero waste to landfill aspiration. The proposal constitutes ‘recycling’ and ‘other recovery’ as set out within the Waste Hierarchy, again complying with the disposal as a last resort requirement and assisting in taking waste away from landfill.

5.5 Incorporating an energy from waste facility, this also meets the indisputable need for all types of energy infrastructure established in the National Policy Statements and has an important role to play in the commitment to increase the UK’s total energy from renewable and low carbon sources.

5.6 Both the NPPW and WSWLP clearly state that there is no requirement for applicants to demonstrate a quantitative or market need for development on an allocated site. This proposal utilises a site which is allocated for strategic waste management facilities. That said, addressing the clear shortfall of sustainable waste management infrastructure in the County is a strategic objective of the adopted Local Plan and the AMR illustrates a shortfall in capacity against this plan as well as outlining that due to revised waste arising forecasts further waste management capacity, beyond the plan period is required.

5.7 The current position regarding waste management capacity in the County assists in demonstrating the overwhelming need for this development.

5.8 The WSWLP identifies a considerable shortfall in waste management capacity required to achieve the Plan's strategic objectives, that is:

- zero waste to landfill by 2031;
- a network of facilities to minimise transportation of waste; and
- County net-self-sufficiency in waste management for all waste streams.

5.9 **Table 3 of the WSWLP** identifies a requirement for an increase in waste management capacity of 0.68mtpa for the period to 2031. Para. 2.10.10 of the Local Plan states that there will be sufficient capacity for dealing with MSW with the development of an MBT at Brookhurst Wood (under the Materials Resource Management Contract (MRMC) with Biffa)). There is, however, a need for an additional 0.68mtpa of capacity to manage C&I waste during the Plan period. This figure is based on conservative assumptions of growth.

5.10 The West Sussex Joint Minerals Local Plan and Waste Local Plan Monitoring Report 2015/16 provides the most up to date assessment on progress towards achieving the objectives of the WSWLP. Despite the development of the Materials Recycling Facility (MRF) at Ford (which has improved the household waste recycling rate in the County considerably), the MBT (which although now constructed has encountered operational difficulties and is operating significantly below full planned capacity), the energy recovery facility as yet to be constructed by Grundons at Ford in the south of the County (consented in 2014) and the consented WTS/MRF which this proposal will enhance at Brookhurst Wood, there remains a significant shortfall in waste management capacity in the County.

5.11 The Monitoring Report states that overall waste arisings in 2015/16 were 2,153,000t, which amounts to a 10% increase from that estimated when preparing the WSWLP (**Para 5.3.1 of the Monitoring Report**).

5.12 MSW arisings are monitored on an annual basis and for the period 2015/16 there was an increase of 44,000t of MSW managed in the County. (para. 5.4.1 of Monitoring Report). C&I waste arisings are not monitored on a regular basis but recent forecasts suggest that there is a 3% increase in this waste stream in the County, over that assumed in the WSWLP.

5.13 Although the WSWLP and the Monitoring Report indicates that the development of the MBT addresses MSW management needs, it is noted that an MBT process does not provide a complete waste management solution. The facility at Brookhurst Wood has been sized to reflect the level of MSW arising in the County, which the Monitoring Report indicates is now increasing. It produces a refuse derived fuel (RDF) which, unless new facilities are built within the County, will need to be transported to another treatment facility to recover energy outside West Sussex. WSCC procured its 5-year RDF management contract with Britaniacrest and Seneca in December 2017, which will see RDF exported to Germany for energy recovery. Unless a specific energy recovery facility – such as the potential 3Rs Facility at the applicant site - is identified to accept it, RDF produced will probably continue to be exported from the country – an uncertain prospect following Brexit.

5.14 The energy recovery facility, planned by Grundon and consented at Ford, once constructed, will help address some of the shortfall in waste management capacity (200,000 tpa) – particularly along the south coast - but there remains a significant capacity shortfall.

5.15 Although this proposal replaces/enhances a consented facility at this site, it has been sized to serve local need and will provide a more sustainable waste management solution for the management of C&I and MS residual waste which will complement the existing and planned facilities in the County.

5.16 The site represents one of five allocations in the WSWLP under **Policy W10**. Whilst one site is consented, the other 3 are no longer available to meet an already identified shortfall in capacity. There is therefore an overriding need for this proposal to come forward to as a strategic waste management facility.

Design

5.17 This proposal has been specifically designed to address site specific requirements set out in the Local Plan. The proposed waste management capacity of the facility is consistent with the anticipated capacity of this site as set out in **Table 4 of the WSWLP**.

5.18 The high-quality design scheme adopted for this proposal has evolved cognisant of the development principles indicated in **para. 7.3.15 of the WSWLP** and in consultation with officers at WSCC and local interested parties. Detailed consideration of environmental issues is provided in the Environmental Statement (ES) which supports this application and is summarised in the following chapter 6 below. The Environmental Impact Assessment (EIA) has informed and shaped the design solution for this site.

5.19 Key stakeholders have helped guide the design solution prior to the submission of this application as outlined in Section1above, including feedback as a result of the previously withdrawn application.

5.20 The proposed design is outlined in Section 3 of this statement and the accompanying Design and Access Statement, which provides an explanation about the design process and evolution.

5.21 The design has taken account of all the site-specific considerations which have influenced the final concept. Consistent with the requirement of **para. 7.3.15 of the WSWLP** this proposal will allow the comprehensive redevelopment of this site. The design concept is sensitive to the site's long industrial heritage whilst offering a hi-tech design solution comprising an appropriate height with curvilinear roof and adopting a sympathetic colour pallet,

5.22 The colour pallet has been informed by the High Weld AONB Guidance which explains that colour makes a key contribution to the landscape character and local distinctiveness of the area. Choosing the correct colours for new development will help to contribute to local distinctiveness. Whilst the application site is not within the AONB boundary, it can be seen from it and therefore, the advice given in the guidance has been taken into consideration when designing of the building. This is discussed in more detail in Chapter 5 of the ES.

5.23 The site will be enhanced with improved landscaping at the boundary and a lighting scheme has been developed which allows safe site operation whilst minimising light pollution in this semi-rural setting (refer to Lighting Scheme, plan ref RP-ST-XX-A-DR-6302. Overall the design concept will result in maintaining and enhancing the high quality, vibrant environment which prevails in Horsham District.

5.24 The site is located 11 miles south of Gatwick Airport which is a nationally important operation. An aerodrome safeguarding review and statement was prepared at the early stage of designing this proposal. The facility will comprise a 95m stack, however, early consultation with appropriate

authorities has confirmed that the proposed development will not conflict with the safe operation of the airport. Red obstacle lights will be fitted 1.5m below the top of the stack and on the Boiler Building, as required by Aerodrome Safeguarding representatives for Gatwick Airport.

5.25 The development will utilise the existing access from the A264 via Langurstwood Road

5.26 The layout of the facility has been optimised to fit within the existing boundary constraints, laid out to improve operational efficiency, and orientated to minimise external visual impact. The building footprint is largely dictated by the internal linear process within, however it has been designed to avoid the sensitive two ponds to the north which contain great crested newts. In addition, areas for landscape and ecological enhancement planting have been provided to the East and North-Eastern boundary to minimise the potential for ecological impacts as well as minimising external visual impact.

5.27 The proposal is considered to be a 'good design' as it is functional in use and respectful of its context and is therefore in accordance with the National Planning Practice Guidance, Policies W10 Brookhurst Wood Development Principles, W11 Character and W12 High Quality Development of the WSWLP and Policies 32 The Quality of Development and 33 Development Principles of the HDPF.

Summary of Principle of the Development

5.28 Considerable weight should be afforded the policies of the WSWLP when determining this proposal, in accordance with S38(6) of the Planning and Compulsory Purchase Act 2004. The WSWLP is an up to date local plan which fully reflects national planning policy and other relevant Government strategies and plans.

5.29 The National Planning Policy Framework (NPPF) provides a presumption in favour of sustainable development and requires proposals to be determined favourably, without delay, where they accord with the adopted development plan.

5.30 As outlined above, this proposal has been designed specifically to address the strategic objectives and detailed policies of the WSWLP. The facility will be situated on an allocated site and offers a comprehensive solution for the management of residual waste. It will complement other facilities planned or constructed in the County, and help address the identified shortfall of sustainable waste management capacity whilst providing significant greenhouse gas savings.

5.31 The overriding strategic requirement for this facility is clear. The ES which supports this application clearly demonstrates that the proposal has been designed to address all site-specific development principles identified in the WSWLP without any significant environmental impact. This is expanded upon below.

6 DETAILED MATTERS

Introduction

6.1 The Sustainability Assessment of the WSWLP determined that the location of the Application Site was acceptable to be taken forward as an allocation for a waste management facility, in accordance with para 120 of the NPPF. The site has now also been assessed by the applicant in direct relation to the detailed proposals, in line with the mitigation measures for any application included in the WSWLP Sustainability Assessment, as well as giving due regard to the National Planning Policy for Waste, Appendix B, site selection suitability.

6.2 The main potential environmental impacts associated with the proposal are considered to relate to:

- Landscape and Visual Impacts
- Traffic Impacts
- Air Quality Impacts
- Noise and Vibration
- Archaeology and Cultural Heritage
- Hydrology and Flood Risk
- Hydrogeology and Ground Conditions
- Ecology and Nature Conservation; and
- Population and Health

6.3 The potential for these impacts has been addressed in detail through an Environmental Impact Assessment, the findings of which are reported in the Environmental Statement submitted alongside this application.

6.4 Consideration has also been provided to the following topics outside of the main Environmental Impact Assessment:

- Aerodrome Safety;
- The potential for heat use; and
- Greenhouse Gasses/Carbon Footprint.

6.5 The findings of these assessments have concluded that there are no unacceptable risks or effects as a result of the proposed development, subject to mitigation. This is discussed below alongside consideration of the developments fit within the context of the main relevant policy considerations.

Landscape and Visual Impacts

6.6 An assessment has been carried out to identify the significance of the effect of the proposed 3R's facility on:

- The character of the landscape and its component features; and
- Views of the landscape that people experience, including from residential properties, public rights of way and roads.

6.7 The assessment has been carried out in accordance with widely accepted best practice and its scope and focus has been guided by consultation with the local planning authority. Full details of the assessment can be found in Chapter 5 of the ES, Landscape and Visual Resources. Its findings are summarised below.

6.8 The Application Site is situated within the context of existing Brookhurst Wood Landfill site and existing industrial development to the north, south and east. This site is afforded a high level of enclosure by the mature vegetation and woodland that surrounds it and by the local topography.

6.9 The proposed development would not encroach on any farmland or woodland in the surrounding area. The proposed development would not give rise to any significant landscape effects at the local or wider scale and would not cause any significant indirect effects upon the designated landscapes of the High Weald Area of Outstanding Natural Beauty (AONB) and the Surrey Hills AONB.

6.10 Whilst the proposed development would comprise a number of large elements, the scale of existing development such as the Brookhurst Wood Landfill Site and other industrial scale operations in the immediate vicinity of the site means that it is within the capacity of the Landscape Character Areas that the Application Site is situated in, to absorb this type of development. The gently undulating landscape and high level of mature woodland that is present amongst the rural farmland provides a high level of enclosure for much of the Study Area with a generally intimate scale that further contributes to the ability of the Application Site and local area to receive the development without altering the key characteristics of any Landscape Character Areas of any scale. As such, the proposed development would not cause any significant effects upon the receiving landscape and is not determined to be inappropriate.

6.11 The building of the proposed development is of a large scale and the stack is tall, however, the building would be enclosed by a significant amount of existing screening. The surrounding landform and the substantial existing hedgerow vegetation, tree-belts and woodland in the local area mean that visibility of the proposed development would be very well screened. There are very few viewpoints that will see any more than the stack. From Station Road to the west and from a viewpoint on the A24 to the south more of the building would be visible. Having lowered the building, reducing the height of the technology, changing the design of the building to break up its massing and using muted colours from the approved High Weald AONB colour palette, the visibility of the proposed development has been minimised. Planting within the development site would assist in screening low level elements from views within the Wealden Brickworks site and the planting to the north and west would create additional ecological habitat when viewed from close range visual receptors.

6.12 In longer range views, the proposed development would be visible from some of the more elevated parts of the Study Area such as from the edge of the South Downs National Park, Surrey Hills AONB

and the edge of the High Weald AONB. If noticed it would be seen as a small part of expansive views that are predominantly of an undulating, wooded and farmland landscape and it would not compromise the special qualities of these designated landscapes or the purpose of the designations.

6.13 Under certain meteorological conditions, representing less than 5% of the hours in the year, a visible plume of water vapour would be seen as an extension to the stack, which is typical of combustion processes. Where the visible plume forms, typically during cooler weather conditions, it would sometimes be seen against the backdrop of a clear sky or high cloud and sometimes it would be seen against the backdrop of cloud, when it would be less discernible. When the plume is visible, it would increase the perception of the development for visual receptors area but would not make any of the effects that are likely to arise as a result of it significant.

6.14 The Land North of Horsham has a resolution to grant outline consent, subject to legal agreement. When considered with the future scenario, the proposed development would sit to the west of the urban extension into the currently rural landscape north of Horsham. It would have less effect on the rural character than the urban extension and it would be well screened from it. Within the urban extension, elements of that development would dominate the local context and would further screen views of the proposed 3Rs facility.

6.15 The proposed development is therefore considered to be in accordance with the National Policy Statement for Energy, National Planning Policy and Guidance and Policies W11 Character and W13 Protecting Landscapes of the West Sussex Waste Local Plan (WSWLP) and Policy 25 Natural Environment and Landscape Character of the Horsham District Planning Framework (HDPF).

Traffic

6.16 The proposed facility will be accessed from the A264 via Langurstwood Road. The overall capacity of the new development will not result in an increase of the 230,000 tpa already consented for this site. Therefore, once operational, it will not give rise to an increase of HGV movements using the local road network, beyond that already permitted i.e. no more than 142 HGVs Monday to Friday and no more than 70 HGVs on Saturdays, and the applicant would be willing to accept a planning condition in this respect.

6.17 The potential impacts of the traffic generated by the proposed development have been assessed and fully reported in Chapter 6 of the ES. The assessment has considered the impacts of the traffic generated during construction, operation and considered the cumulative effects with other known developments in the area.

6.18 There would be no change to traffic flows to the site during the operation phase. No effects on traffic and transport are therefore predicted.

6.19 The assessments have considered the change in traffic flows along the road network as a result of construction. The assessments have been made relative to the baseline conditions, which mean that roads with small baseline traffic volumes have larger magnitudes of impact from changes in traffic in comparison to those with larger baseline traffic volumes.

6.20 Effects on the A264 are considered to be negligible, given the low predicted percentage changes in traffic flow on that route arising from the construction phase. Due to the lower baseline flows, predicted changes in flow on Langhurstwood are higher. Therefore, an assessment of the environmental effects of these changes has been undertaken, including visual effects, severance,

driver delay, pedestrian delay, pedestrian amenity, accidents and safety, hazardous loads and dust and dirt.

6.21 Construction phase effects would be managed through a Construction Environmental Management Plan and a Construction Traffic Management Plan. With such measures in place, no significant effects have been identified.

6.22 The predicted changes in traffic volume along the road network are predicted to be small. In accordance with current guidance, the assessments predicted that no significant effects would arise. Consideration of other proposed developments has not identified the potential for the development to contribute to any significant cumulative effect.

6.23 The proposed development is therefore in accordance with the National Planning Policy and Guidance and Policies W10 Brookhurst Wood Site Development Principles, W18 Transport and W21 Cumulative Impacts of the WSWLP.

6.24 The site is well related to the rail network with the railway line forming the western boundary of the site. Scope to use rail for the movement of waste to the site has been considered. However, it has been concluded that at this stage, it is not likely to be economically viable given the proposed scale of the facility, which has been designed to serve predominantly local need for sustainable waste management infrastructure. This is a matter which the Applicant is happy to keep under review for the duration of the operation.

Air Quality

6.25 The potential air quality impacts of the proposed development have been assessed, as reported in full in Chapter 7 of the ES.

6.26 The potential air quality effects from the construction and operation of the proposed facility are considered to be:

- Construction effects - potential dust effects from construction activities; emissions from plant associated with on-site construction and potential effects associated with emissions from construction vehicles on the local road network;
- Operational effects (facility) - potential air quality effects from the thermal treatment plant stack; potential fugitive dust, odour and bio-aerosol effects; and
- Operational effects (traffic): potential air quality effects from changes in traffic flow characteristics on the local road network associated with the operation of the proposed facility.

6.27 Impacts during the construction, such as dust generation and plant vehicle emissions, are predicted to be of short duration and only relevant during the construction phase. The results of the risk assessment of construction dust impacts is considered to be medium. Implementation of the 'highly-recommended' mitigation measures described in the Institute of Air Quality Management guidance should reduce the residual dust effects to a level categorised as "not significant". This will be controlled through a Construction Management Environmental Plan.

6.28 The number of vehicle movements that would be generated by construction activities is below the threshold criteria for requiring an assessment. There will be no change in HGV movements during

the operational phase over and above the site's extant consent. On that basis, vehicle-related emissions have not been assessed. The impacts due to emissions from both construction and operational-related vehicle emissions are therefore considered to be "not significant".

6.29 Emissions from the proposed thermal treatment of waste have been assessed through detailed dispersion modelling using best practice approaches and conservative assumptions. The results of dispersion modelling indicate that predicted contributions and resultant environmental concentrations of all pollutants considered are of 'negligible' significance.

6.30 A plume is predicted to be visible outside the site boundary less than 5% of daylight hours in each of the five years modelled. Using the impact descriptors adopted for the assessment, the impact is considered 'low' and the plume visibility is considered to be 'acceptable'.

6.31 The main operational dust mitigation measure is containment. Considering the fact that the process is largely contained and the relative proximity of sensitive receptors, the risk of dust impacts during operation is predicted to be low (Insignificant).

6.32 The risk of odour impacts has been assessed and is considered to be negligible.

6.33 Overall the effects of the facility, in air quality terms, are not considered to be significant.

6.34 The proposed development is therefore in accordance with the National Planning Policy and Guidance and Policies W16 Air, Soil and Water, W19 Public Health and Amenity and W21 Cumulative Impact of the WSWLP and Policy 24 Environmental Protection of the HDPF.

Noise & Vibration

6.35 A detailed noise and vibration assessment predicting the potential effects of emissions generated during the construction and operation of the facility has been undertaken, with reference to national Planning Practice Guidance.

6.36 The assessment indicates that, with suitable mitigation measures, there is likely to be a direct, temporary, medium-term noise effect on noise-sensitive receptors (NSRs) of minor adverse significance. Vibration impacts will be negligible and the significance of effects will therefore be negligible. With reference to the PPG, construction noise effects might be above the Lowest Observed Adverse Effect Level but will be below the Significant Observed Adverse Effect Level and vibration effects will be below the No Observed Effect Level

6.37 The effects of a change in noise levels due to road traffic on the local road network during the construction period have also been considered. The assessment indicates that the significance of effects due to operational road traffic noise is negligible.

6.38 In order to comply with the Environmental Permitting Regulations (EPR), the development will incorporate Best Available Techniques to minimise noise emissions. The Air-Cooled Condensers would be selected such that they would not exceed a sound power level of 90 dB(A). HGVs will follow the approved access routes to and from site, which will be detailed in a Traffic Management Plan. Other external plant will be located within buildings or enclosures which would be designed to reduce noise levels, if required.

6.39 An assessment of the operational noise effects, with the above measures in place has been carried out in accordance with the PPG and BS 4142:2014. The assessment indicates that, at the majority of

locations, the rating level does not exceed the background sound level. At a single location the background sound level would be exceeded by up to 4dB during the night-time period but would not exceed the ambient level and would not cause sleep disturbance. The context of the site is industrial in nature and MBT plant and AD plant are located between the proposed 3Rs facility and receptor location.

6.40 It is possible that noise from site activities will be noticeable on occasions at the closest NSRs to the site but it will be at a level that would not cause any changes in behaviour or attitude or a perceived change in quality of life for the small number of residents that might occasionally hear noise. Therefore, with respect to national planning guidance in the PPGN, the level of noise will be at or below the LOAEL.

6.41 The effects of change in noise levels due to road traffic on the local road network during the operational phase have also been considered. The assessment indicates that the significance of effects due to operational road traffic noise is negligible. The traffic numbers associated with the development are also within those agreed within the existing planning permission and should therefore be acceptable to WSCC.

6.42 Cumulative operational noise effects with other consented developments and the change in noise levels due to road traffic on the local road network have been considered. Although there is potential for cumulative effects to occur, these are likely to be negligible to minor. On this basis, the significance of cumulative effects would be, in the worst case, of minor adverse significance.

6.43 In summary, there is the potential for effects of no more than minor adverse significance to occur due to noise during the construction of the development and at one location during the operation of the development, and cumulatively with road traffic from other developments. Construction noise will be controlled using best practicable means and operational noise will be controlled using best available technology. The effects due to construction vibration are negligible. An appropriate condition will be able to secure the control of noise during construction and operation of the facility. Noise during operation will be controlled under an Environmental Permit.

6.44 Mitigation for noise and vibration from construction activities will be provided within a Construction Environmental Management Plan (CEMP) for the site based upon the guidance in BS 5228-1:2009+A1:2014 and BS 5228-2:2009+A1:2014. Construction works will follow Best Practicable Means outlined in Section 72 of the Control of Pollution Act 1974 (as amended) to minimise noise and vibration effects.

6.45 The proposed development is therefore in accordance with the National Planning Policy and Guidance and Policies W10 Brookhurst Wood Development Principles, W19 Public Health and Amenity and W21 Cumulative Impact WSWLP and Policy 24 Environmental Protection of the HDPF.

Archaeology & Cultural Heritage

6.46 The likely significant effects of the proposed development on heritage assets in terms of archaeology, built heritage and the historic landscape have been assessed. for both the construction and operational phases of the proposed development. This is reported fully in Chapter 9 of the ES.

6.47 The assessment has found that there are no designated sites (e.g. scheduled monuments, listed buildings) within the proposed development site.

6.48 There are a number of designated assets in the wider area. Within 1.5km of the site there is one scheduled monument and 36 listed buildings, one of which (the Parish Church of St. Margaret) is listed at Grade 1. Further afield (up to 5km) there are a further 5 scheduled monuments and 70 listed buildings,

6.49 A comparison of these against the Zone of Theoretical Visibility (ZTV) has been undertaken and a detailed assessment has been carried out to assess the effects, if any, on these assets as a consequence of the proposed development.

6.50 There is limited evidence for prehistoric and Roman activity in the area. The site itself seems to have been woodland and then agricultural land from antiquity onwards. There is no recorded evidence for activity, other than use as agricultural land over the proposal site until the development of the brickworks.

6.51 Most of the structures associated with the brickworks have been cleared. Those remaining within the site form part of the Waste Transfer Station/Materials Recycling Facility building. Cartographic and architectural evidence indicates that all of these structures are of post-war origin. Although no above ground remains are visible, there may be below ground remains of the southernmost Hoffman kiln formerly standing in the brickworks in the north-western part of the site. Although there are several examples of Hoffman kilns which have received statutory protection, these are, apparently without exception, standing structures. Below ground remains of the one in this location are likely to be of local significance.

6.52 There is no evidence for the site to contain below ground remains of the highest significance, or of sufficient significance to warrant preservation in situ. Appropriate mitigation measures for the proposed development have been incorporated into the assessment of residual effects. They comprise mitigation of the effect of the development on the Hoffman kiln within the site through a programme of excavation and recording of the asset prior to construction of the proposed development.

6.53 No mitigation measures for effects on the settings of designated assets, other than those already incorporated within the proposals, are considered necessary.

6.54 There are predicted to be no significant effects on buried archaeological remains, the historic landscape, or any designated heritage assets.

6.55 The proposed development is therefore in accordance with the National Planning Policy and Guidance and Policies W10 Brookhurst Wood Development Principles and W15 Historic Environment of the WSWLP and Policy 34 Cultural and Heritage Assets of the HDPF.

Hydrology and Flood Risk

6.56 The impacts on hydrology and flood risk for the proposed development have been assessed in line with the relevant legislation, guidance, planning policy and technical documentation. In addition, the water quality of the adjacent watercourses and the potential water quality impacts of the development have been considered.

6.57 The baseline hydrology and flood risk of the development has been characterised by a desk-top study of published sources of information, surveys and through consultation.

6.58 Environment Agency (EA) mapping indicates that the whole of the proposed development is located within Flood Zone 1, defined as having a less than 1 in 1,000 annual probability of river or sea flooding.

6.59 Due to the presence of significant drainage systems within the Site and the relatively flat lying land, it has been assessed that the risk of overland flooding is low.

6.60 British Geological Survey (BGS) online map (accessed November 2016) indicates that the Site is directly underlain by Weald Clay Formation – Mudstone. The bedrock is classified by the EA under the Water Framework Directive (WFD) as an unproductive stratum. Based on this information the risk of flooding from groundwater sources is low.

6.61 Information from the Environment Agency indicates that no historical flooding has occurred within the Site boundary.

6.62 The proposed development is located within Upper Arun operational catchment with the Boldings Brook located approximately 125 mm west of the Site. The EA catchment Data Explorer (Accessed November 2016) indicates that the Boldings Brook has a poor water quality based on the WFD classification within the 2015 cycle.

6.63 A number of potential impacts on hydrology and flood risk, associated with the construction and operation were identified. These include the permanent flood risk and the impact on drainage pipelines and surface water quality from potential spillages / increase in soil disturbance during the construction and operational phases. With the proposed mitigation measures in place, all these impacts result in either negligible or low adverse impacts.

6.64 There are unlikely to be any major impacts on hydrological condition during the construction phase. Activities on site would be controlled through best practice site management construction and operational techniques. Impacts would be temporary and are anticipated to be negligible to low.

6.65 The development will result in 15% increase in the permeable area of the site. However, any increase in flood risk during the construction or operational phase due to disturbance of on-site drainage systems will be managed through the drainage design philosophy, restricting off-site surface water flows and using best practice construction techniques.

6.66 The proposed development is therefore in accordance with the National Planning Policy and Guidance and Policies W10 Brookhurst Wood Development Principles and W17 Flooding WSWLP.

Hydrogeology and Ground Conditions

6.67 An assessment of hydrogeology and ground conditions has been undertaken to establish if the construction, operation and demolition of the proposed facility will cause an impact.

6.68 The baseline conditions for the site were established through a desk based review of publicly available records and data bases together with historical reports relating to the site. Additionally, a site reconnaissance was undertaken. This assessment identified that ground contamination at the site was limited, with an absence of notable ground stability issues.

6.69 The assessment of impacts identified that without appropriate mitigation there are a number of likely significant impacts relating to soils, geology and land contamination that would be considered moderate to major adverse. A range of mitigation measures, as set out in Chapter 11 of the ES,

have been identified that address the identified likely significant impacts. The identified mitigation measures are well established and accepted methods of mitigating the identified impacts.

6.70 With appropriate mitigation, the impacts associated with redevelopment and operation of the site relating to hydrogeology and ground conditions is assessed as low and the significance of effect as minor. It is considered that the proposed development will not generate an unacceptable impact.

6.71 The proposed development is therefore in accordance with the National Planning Policy and Guidance and Policy W10 Brookhurst Wood Development Principles.

Ecology and Nature Conservation

6.72 An Ecological Impact Assessment has been undertaken to determine the ecological value of the site and the scale of potential impacts on the site itself and the surrounding area. The appraisal has been informed by a range of surveys undertaken during 2016 to assess the ecological value of the site.

6.73 These surveys found that the site was generally of very low ecological value comprising mostly hardstanding and industrial buildings associated with Britaniacrest's existing operations. No bat roosts were identified on site and only very limited bat foraging/commuting activity was noted.

6.74 Ecological features of interest in the context of the site include two off-site ponds supporting a population of great crested newts and areas of dense scrub/tall ruderal vegetation forming part of the terrestrial habitat for this species. Impacts upon these and other species / species groups identified as ecological features have been assessed.

6.75 The construction of the proposed facility will result in the loss of much of the existing great crested newt terrestrial habitat from the site; therefore, works will need to be completed under licence from Natural England. The loss of this habitat will be mitigated through new landscaping surrounding the site in the form of wildflower grassland and areas of scrub. The areas of the ponds in the control of the applicant will also have additional planting completed to enhance these.

6.76 There will be some minor loss of breeding bird habitat (dense scrub) that will be mitigated in the short term through the provision of a range of bird nest boxes and in the long term through the planting of new scrub areas as part of the landscape scheme.

6.77 Species protection measures will be implemented as best practice to minimise the risk of harm to great crested newts and nesting birds during site preparation and removal of very small areas of dense scrub.

6.78 Taking into account the overall low ecological value of the majority of the site, the species protection measures to be implemented and the proposed habitat creation and enhancement, there will be no residual adverse impacts with significance beyond the level of the site and its surrounds, and all adverse impacts will be of no more than minor significance.

6.79 In the context of the low value of site, the creation of new ecologically-valuable habitats will be of minor beneficial significance for the following habitats, species and species groups:

- Bats (foraging and commuting);
- Nesting birds (not ground nesting species);

- Great crested newts.

6.80 No cumulative impacts with the proposed nearby RDF facility to the north or the Land North of Horsham urban extension are considered likely.

6.81 The proposed development is therefore in accordance with the National Planning Policy and Guidance and Policy W14 Biodiversity and Geodiversity of the WSWLP and Policies 25 Natural Environment and Landscape Character and 31 Green Infrastructure and Biodiversity of the HDPF.

Population and Health

6.82 A population and health assessment has been undertaken which draws from and builds upon other environmental assessments undertaken as part of the Environmental Impact Assessment process, and applies scientific evidence concerning potential for health risks. The assessment uses locally available statistics to ensure the assessment is project-specific and tailored to local health circumstance.

6.83 Following a review of the available demographic, health and hospital admission statistics, the surrounding area of the proposed development is sparsely populated where local communities typically have lower burdens of poor health and lower levels of deprivation than the national trend.

6.84 The main potential health pathways – environmental or social changes that could affect people and are relevant to health – to assess have been identified as, air pollution (including nuisance from dust), noise and road traffic.

6.85 Construction activities will be of a temporary nature and will be managed through a dedicated Construction Environmental Management Plan and Construction Traffic Management Plan. It is concluded that the potential effects on population and health from dust nuisance, air pollution, noise and increased transport flows will be adequately managed and will not be of a magnitude, timing or duration sufficient to establish a significant effect.

6.86 During operation, transport movements will remain the same as currently permitted at the site and air quality and noise emissions will remain within objective thresholds set to be protective of the environment and human health. Therefore, it is concluded that the potential effects of the proposed development on population and health during operation are not significant.

6.87 The proposed development is therefore in accordance with National Planning Policy and Guidance and national requirements regarding health and the assessment of such and with Policy W19 Public Health and Amenity of the WSWLP and Strategic Policy 24 Environmental Protection of the HDPF.

Resilience of the Design to Climate Change

6.88 Resilience to future climate change has been considered during the design process. The design has taken into account, for example, future flood risk and resilience to extreme weather events. The project would be built and designed in accordance with relevant buildings regulations and would therefore be able to withstand climatic changes anticipated to occur within the project's lifetime. This philosophy would provide a significant betterment when considered against the existing drainage system in terms of flow rate and volume.

6.89 The proposed drainage strategy would incorporate appropriate measures to manage surface water runoff to greenfield runoff rates using sustainable drainage systems (SuDS) and would take into account the 1 in 100-year risk event, with an allowance for future climate change. Further details of the proposed drainage strategy are provided in ES Chapter 10 (Hydrology and Flood Risk) and ES Appendix 10.2 (Flood Risk Assessment).

6.90 The proposed development is therefore in accordance with the overarching Government climate change objectives, National Planning Policy and Guidance and Policy 35 Climate Change of the HDPF.

Vulnerability to Accidents and/or Disasters

6.91 Throughout the Environmental Impact Assessments undertaken, as reported in the Environmental Statement, the potential for accidents and disasters have been considered. It is stressed that such events are not considered likely. Further information is provided in the preliminary risk assessments provided in ES Appendices 2.4 and 2.5.

Aerodrome Safeguarding

6.92 An Aerodrome Safeguarding Statement is submitted in support of this application and is appended to this statement (Appendix C). This describes the enquiries made to Gatwick Airport Limited Safeguarding (GAL Safeguarding) regarding the potential effects of the proposed development on the airport operations and to describe any mitigation schemes to be deployed to avoid or ameliorate these effects.

6.93 Consultation had previously been undertaken with Gatwick Airport Limited (GAL) Safeguarding at the time of the previous scheme. At that time GAL confirmed that the height of the proposed development is under the Outer Horizontal Surface of 204.35m AOD, and that there would be no infringement of the safeguarding and no impact on radar or navigational aids. The proposal is now reduced in height and the stack remains at the same height of 95m, thus it was considered unnecessary to re-consult with GAL and the previous comments still stand.

6.94 GAL Safeguarding did, recommend that medium intensity red obstacle lights be fitted 1.5m below the top of the stack, and that care be taken in the waste management procedures and the design of the building not to attract birds. They also requested sight of the emissions from the stack (assumed to be referring to the air quality modelling calculations) and to be informed one month before any cranes are brought onto site. The applicant agrees to comply with these requests; the lighting has been included within the proposed design.

6.95 This requirement and conclusions accord with the mitigation measures outlined in the Sustainability Appraisal of the WSWLP and Policies W10 Development Principles and W22 Aviation of the WSWLP.

Potential for Heat Use

6.96 A Local Area Potential Heat Users Study has been undertaken and is appended to the statement (Appendix F). This report provides background research of the potential for local heat and power users in the vicinity of the proposed development. The facility has been designed to be able to

provide a combination of electricity into the national grid and district heating or power should a viable and deliverable solution be forthcoming; either at the start of the operational or a later date.

6.97 This report concluded that the current heat load in the general area is relatively small and would not give good quality CHP meeting the requirements of Ofgem CHPQA without an extensive network and suffer from low consumer density. There is however the potential to provide heat to the brickworks on the adjacent site. Should planning permission be granted, this potential will be pursued further.

Greenhouse Gases/Carbon Footprint

6.98 A greenhouse gas assessment of the proposed thermal treatment facility, based on an estimate of its operational carbon footprint, has been undertaken (Appendix H). The assessment takes into account process emissions (considering the scenarios of the facility operating in electricity-only mode and potential combined heat & power (CHP) mode), avoided emissions and vehicle emissions associated with the transportation of waste.

6.99 Over the expected lifetime of the proposed facility (assumed to be 25 years) total GHG emissions savings from the thermal treatment facility amount to at least 6.06 million tonnes of CO2 equivalent compared to the current landfilling of the waste, and over 7 million tonnes of CO2 equivalent if CHP is developed early in its operational life.

6.100 In summary, the proposed facility is anticipated to have a significant positive impact on greenhouse gas emissions within West Sussex compared to the existing commercial and industrial waste management arrangements.

6.101 The proposed development is therefore in accordance with the overarching Government climate change objectives, National Planning Policy and Guidance and Policy 35 Climate Change of the HDPF.

Summary of Planning Policy Compliance

6.102 The following table provides a summarised assessment of how the proposed development complies with adopted development plan strategic objectives and policies, as a summary of the more detailed appraisal.

Table 4.1 Summary of Adopted Development Plan Policy Compliance

Document	Policy	Comment	Compliance
West Sussex Waste Local Plan	Strategic Objectives	SO1 Proposal has potential to assist with the implementation of the Joint Waste Management Strategy, offering a recovery solution for RDF created from the MBT. SO2 Allows C&I waste to be diverted from landfill. SO3 Helps achieve net self-sufficiency. SO5 Uses an allocated site which will ensure that waste is managed close to	✓

		where it arises.	
	W10 Strategic Site Allocations	Utilises an allocated strategic site. Addresses recognised shortfall in capacity. Allows for the comprehensive redevelopment of a brownfield site.	✓
	Para 7.3.3 Combined Heat and Power	The facility will be constructed CHP ready and the Applicant is exploring the potential for securing CHP for adjacent heat-uses, as set out in the desk top heat survey.	✓
	W10 Para 7.3.15 Development Principles	A comprehensive EIA has been carried out in support of this application. The scope of the EIA reflects the "Development Principles" for this site. An Aerodrome Safeguarding Statement is provided in support of this application. The Traffic implications are addressed in ES Chapter 6, the methodology for which has been agreed with West Sussex County Highways.	✓
	W11 Character & W12 High Quality Development	The proposed development incorporates high quality/sustainable design principles which seek to protect and enhance the character of the site and surrounding area. The proposal has been designed by RPS Architects who have extensive experience of designing high quality waste management facilities. Design alternatives considered for this site and design principles are outlined in the accompanying Design and Access Statement. The final design solution is a product of an iterative process responding to the technical and environmental considerations specific to this site and guided by pre-application consultation with key stakeholders.	✓
	W13 Protected Landscapes W14 Biodiversity W15 Historic Environment W16 Air, Soil & Water W17 Flooding W18 Transport	A comprehensive EIA, the scope of which has been agreed with the County Council, has been carried out to inform the development. The ES demonstrates that the proposal will not give rise to unacceptable environmental impacts. Potential cumulative impacts were assessed as part of the EIA, as reported in	✓

	W21 Cumulative Impacts	the ES.	
	W19 Public Health & Amenity	All significant potential impacts on the local environment and amenity of local residents have been assessed in the EIA carried out to inform the proposal. The ES concludes that this development will not have an unacceptable impact on the public health or amenity. The proposal is supported by a Statement of Community Involvement which outlines the consultation strategy pre and post application. A local community liaison group is already in place and it is anticipated that the committee will continue to meet every quarter year to ensure effective communication between local residents and the site operator.	✓
	Policy W22 Aviation	An Aerodrome Safeguarding Statement has been provided in support of this application. The proposal has been designed to ensure that it will not affect the operational integrity of aviation facilities.	✓
	Policy W23 Waste Management	The proposed development will contribute significantly to the sustainable waste infrastructure in the County. A Construction Environmental Management Plan (CEMP) will be prepared for the development (and can be secured through an appropriate planning condition) which will consider the sustainable management of waste during the construction phase of the development.	✓
Horsham District Planning Framework 2015	Policy 2 Strategic Development Policy 3 Development Hierarchy Policy 5 Horsham Town	The proposed development is well related to a strategic development site and Horsham, where the focus of new development is planned, and provides an opportunity for waste to be managed close to where it arises. The facility will contribute to the services which support the main town in the District.	✓
	Policy 24 Environmental Protection	A comprehensive EIA, the scope of which has been agreed with the County Council, has been carried out to inform the	✓

	Policy 25 Natural Environment and Landscape Character Policy 31 Green Infrastructure and Biodiversity Policy 34 Cultural and Heritage Assets	proposals. The ES submitted in support of this application demonstrates that the proposal will not give rise to unacceptable environmental impacts. Potential cumulative impacts were assessed as part of the EIA. Mitigation measures identified in the ES have informed the design of the proposal.	
	Policy 32 Quality of New Development Policy 33 Development Principles	The proposed development incorporates high quality/sustainable design principles which seek to protect and enhance the character of the site and surrounding area. The proposal has been designed by RPS Architects who have extensive experience of designing high quality waste management facilities. Design alternatives considered for this site and design principles are outlined in the Design and Access Statement. The final design solution is a product of an iterative process responding to the technical and environmental considerations specific to this site and guided by pre-application consultation with key stakeholders.	✓
	Policy 35 Climate Change	This proposed development will divert waste from landfill and recover renewable energy. Climate Change has been considered as part of the EIA process. (total GHG emissions savings from the thermal treatment facility have been estimated to amount to between 6 and 7 million tonnes of CO_2 equivalent over a 25-year period compared to landfill)	✓
	Policy 36 Appropriate Energy Use	The proposed development will meet the aspiration to bring more renewable energy generation to the district. It has scope to generate power and heat which could be utilised in either direct power sales or a district heating system.	✓

7 CONCLUSIONS

7.1 The proposed development comprises the construction and operation of a Recycling, Recovery and Renewable Energy (3Rs) facility at Wealden Brickworks, Langhurstwood Road, West Sussex.

7.2 The 3Rs facility will have the capacity to manage 230,000 tonnes per annum of commercial and municipal waste and will incorporate an enhanced version of the Waste Transfer Station/Materials Recycling Facility already consented on the site. It will provide, in addition, an integrated energy recovery facility with a capacity of 180,000 tpa, offering a more comprehensive solution for sustainable waste management in West Sussex, with significant greenhouse gas emissions savings.

7.3 The proposed development will utilise a brownfield site which is a strategic waste allocation in the up to date adopted West Sussex Waste Local Plan (WSWLP). **Policy W10 (a)** of the WSWLP identifies Brookhurst Wood as a site which is suitable (in combination with other strategic site allocations) to address the shortfall in waste transfer, recycling and recovery in the County, a shortfall which is recognised in the Annual Monitoring Report as widening.

Summary of Benefits

7.4 The proposed development offers considerable strategic and local benefits which are summarised below:

- The recovery treatment facility will complement existing waste management in West Sussex and the south east, providing the capacity to manage up to 230,000 tpa of waste and to recover energy from 180,000 tpa of residual (waste which cannot be re-use or recycled) C&I waste and/or MSW, which will make a significant contribution to achieving the County's target of zero waste to landfill by 2031;
- The facility is located on an allocated strategic waste management site which has been specifically identified in the WSWLP as being appropriate for this type of development and which will help minimise transportation of waste in and out of the County;
- The Applicant is a local family business with a long history of operating waste sites. The Recycling Recovery and Renewable Energy facility will generate renewable/low carbon energy from residual waste which will otherwise be disposed of to landfill, or exported for energy recovery out of county;
- The proposed development will contribute to achieving County-wide waste management net self-sufficiency and help to reduce the overall mileage that waste is transported;
- The development has been designed to a high quality, sympathetic to the character of the area, neighbouring uses and long industrial heritage of the site;
- The proposal will result in the comprehensive redevelopment of a brownfield site;
- The facility offers a hi-tech solution for sustainable waste management, creating up to 300 jobs during construction and up to 50 once operational. The development will contribute to a strong and diverse local economy;

- The facility will provide a useful educational resource for the area;
- The development at this location avoids sensitive landscapes and ecology and does not give rise to any unacceptable environmental impacts;
- The site is not located in a designated air quality management area;
- The development will not have an unacceptable impact on aviation business;
- There may be scope to consider rail freight in the future, given the proximity to the railway line, subject to economic viability;
- The development allows the recovery of energy from a part renewable resource which has been diverted from landfill, it therefore works towards delivering local carbon reduction targets (total GHG emissions savings from the thermal treatment facility have been estimated to amount to between 6 and 7 million tonnes of CO_2 equivalent over a 25-year period compared to landfill);
- The bottom ash created from the recovery process can be processed to be used as an aggregate material;
- The facility is a potential heat source for a district heating system and private electricity supply; and
- The facility will complement adjacent waste land uses, helping to minimise the amount of waste which is transported around or out of the County.

7.5 The proposal accords with the strategic objectives and detailed policies of the up to date WSWLP, is sustainable in all respects and therefore should be considered favourably by West Sussex Waste Planning Authority.

APPENDICES

APPENDIX A

Statement of Community Involvement

Recycling Recovery and Renewable Energy (3Rs) Facility

Proposed on the site of the former Wealden Brickworks off Langhurstwood Road, Horsham

Statement of Community Involvement

Community Engagement Strategy in support of planning submission and through to operation

3rd March 2018

Document Control

	Name	Signature	Date
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1. Introduction

The purpose of this document is to describe the stakeholder and community engagement programme that has been carried out to date to inform and engage with the community regarding proposals for a Recycling Recovery and Renewable Energy (3Rs) Facility on the site of the former Brickworks off Langhurstwood Road, Horsham. The programme was part of a longer-term Community Engagement Strategy promoted by the applicant, Britaniacrest Recycling Limited (Britaniacrest) that is on-going and will extend into the construction and operating phases should permission for the development be granted.

This report covers stakeholder and community engagement by Britaniacrest during the current operation of the site and the pre-planning application phases and outlines proposals for the post-planning application phase should permission be granted for the construction and operation for the new 3Rs Facility.

The proposed development is on the same site that is currently operating as a waste recycling, processing and transfer station. A liaison committee - the Wealden Works Community Liaison Group (CLG) - held between Britaniacrest and the local community has been established since August 2015 prior to proposals emerging for the new development. The liaison committee meets regularly, and consequently, it was possible to build on its existence to develop the community liaison for the 3Rs Facility. The prime objective of the pre-application programme was to provide the community with necessary information about the proposed development and planning application, and to answer questions and respond to concerns.

The West Sussex Statement on Community Involvement (Second Review), June 2014 (WSCC 2014) states in paragraph 2 that the County Council:

"is committed to making its policies, decisions and services more accessible to comments from citizens, agencies and major partners so that it is more responsive to local communities, and carries out these duties more effectively. Two main aims underpin this strategy: to enhance the relevance, appropriateness and usefulness of research and consultation to West Sussex County Council, partners, agencies, and interest groups; and to promote participatory forms of consultation and research that contribute effectively to the policy-making process, from formulation through to the implementation, monitoring and review of policy. This will be achieved by developing structures that:

- *build on existing good practice in research and consultation;*
- *extend the nature and range of consultation undertaken with interested groups and agencies;*
- *enhance and support any processes that require consultation as a result of central government policy or other agencies;*
- *bring together other stakeholders and representative groups as consultative partners;*
- *link with other corporate activities in West Sussex County Council;*

- *contribute to the development of Business Unit plans and activities;*
- *provide direct support for research and consultation activities and coordinate this support;*
- *allow resources to be shared and issues in relation to research and consultation to be co-ordinated.*

It is considered that the application for the 3Rs Facility is classified in accordance with paragraph 4.3 as a "(iii) EIA" application.

Paragraph 4.7.4 states:
"……. the County Council will encourage developers to undertake early community consultation and public exhibitions, particularly for major or controversial proposals (see Local List). Such frontloading of involvement gives the local community opportunity to participate in the formulation of a developer's proposal before a planning application is submitted."

The programme implemented by Britaniacrest set out to support the West Sussex Statement on Community Involvement and meets the intent stated within it. It was felt that this, as well as being accepted good practice, would provide adequate community engagement prior to submission of the planning application.

In carrying out the Community Engagement Strategy, reference was also made to the "Good Practice Guide to Public Engagement in Development Schemes" (Good Practice Guide) published by Planning Aid England (Planning Aid 2013), under the auspices of the Royal Town Planning Institute (RTPI)>

The Good Practice Guide states:

"Engagement is a two way process of openly sharing and exchanging information, understanding different views, listening and responding to suggestions, developing trust and dialogue to support effective working relationships to the mutual benefit of all involved."

A key part of the applicant Community Engagement Strategy was to provide information in a simple and understandable way, and to be open to suggestions from the community. This included answering questions when asked.

The Good Practice Guide states eight principles of engagement as follows:

- Research & Analysis
- Relationship building, knowledge and skills
- Communications
- Timing
- Inclusive
- Monitor and evaluate
- Continuing to evaluate
- Learn from the process

The way in which the Britaniacrest community Engagement Strategy met and continues to meet these principles is described later in this report.

Britaniacrest gave careful consideration to the extent and nature of its community engagement, The Good Practice Guide states:

"Every development, no matter how large or small, can benefit from effective engagement. ……. However, the approaches used, the time taken and the resources invested in consultation will be different, and should be in proportion to the size and impact of the development."

Whilst the development of the 3Rs Facility is a significant development within the landscape of its rural setting to the north of Horsham, it is not a Nationally Significant Infrastructure Project, nor will it have the impact on the landscape or financial standing and local infrastructure burden of a development such as a development with over 2,700 houses. It is felt, therefore, that the consultation carried out was proportionate to the size of the development and adequate in terms of its outreach to the local communities.

2. Objectives of the community engagement programme

Britaniacrest's approach on community engagement is to engage in proactive outreach. The strategy operates on several levels and takes into account local residents, local businesses, members, officers, the media and public. This has been on going and will continue throughout this application period into construction and operation of the Facility subject to planning permission being granted.

The pre-application community engagement programme had three key objectives:

1) To provide general information about the 3Rs Facility proposals that was easy to understand, and enabled access to easily find more detailed information for those interested.

2) To give a platform for local residents to express their views and opinions, seek answers to their questions about the new 3Rs Facility development plans and, importantly, to give Britaniacrest the opportunity to respond to any suggestions and/or concerns expressed by the community in preparing the design and plans for the 3Rs facility on this currently operational site.

3) To explain the background to the initial proposals initially exhibited in October 2016 and how that period of consultation and communication has informed and shaped these new proposals tabled in January 2018.

2.1. Pre-application Community Engagement

For the pre-application community engagement programme, information was provided to address four key items of information:

1) Why a planning application was being submitted to the Council, and how it relates to the extant permission already in place and the current waste operations on the site at present.

2) Why there is a need for the 3Rs development.

3) That Britaniacrest has listened to the public and other statutory consultees views following the initial consultation in 2016 onwards in wanting a reduced visual impact and has worked with its technical experts to reduce the highest parts of the building significantly. It has also improved the visual appearance through the use of a specially selected use of a landscape colour palette.

4) The details of the 3Rs application that was to be submitted and what the proposed new facility would comprise.

To provide this information, Britaniacrest provided stakeholders, residents and local businesses with the opportunity to access information on the proposed development and to comment on the 3Rs application.

3. Key stakeholders - keeping you informed

Communications were targeted at four key stakeholder groups. These were to ensure that the nature of the communications provided to each group were appropriate. Each group was engaged with, prior to submission of the planning application. Britaniacrest will continue to keep these groups informed about the development and expand engagement as appropriate.

3.1. Elected members

Elected members interface with the community and so Britaniacrest believe it is helpful to keep members informed so they too are aware of activities and are therefore in a position to respond to questions, if raised by their constituents. Furthermore, if elected members are to support such developments - which are needed within the community, but have potential to be contentious - Britaniacrest believes that it is necessary to ensure that they have sufficient knowledge to be confident in making the necessary decision.

It was also felt important to provide information on timing of exhibitions and the availability of information so that Members could respond knowledgeably to residents if asked. Should planning permission for the development be granted, a similar approach will continue into construction until completion of the 3Rs facility.

3.2. Resident community

The resident community engagement encompasses householders and community groups in the area of Langhurstwood Road, Horsham. These stakeholders were identified and made aware of the proposals by briefings

at the Wealden Works Community Liaison Group (CLG) already set up as described above, and were already a forum for liaison on the existing activities on the site. The CLG has been in active existence since August 2015.

The CLG group were first formally notified of Britaniacrest's plans to explore the potential of developing the site at the meeting on 11th January 2016. Since then there have also been eight further meetings of the group, three presentations and the wider outreach of two separate sets of communication and consultation in 2016 and 2018. This included 2 sets of exhibitions, 2 leaflet drops, 5 newspaper adverts, press releases and coverage, facebook posts, shares and engagement on social media, and a dedicated website page throughout the period. Leaflets were delivered directly to resident and business properties along Langhurstwood Road, Mercer Road and Station Road, and Bell Road, the east side of Church Street and Wyvern Place, in Warnham prior to the January 2018 exhibition.

Two newsletters have been produced and a public exhibition held in October 2016 and again in January 2018 at the same location at which the CLG meets. Liaison with the CLG and the exhibition were timed at an early stage in the development of the 3Rs Facility proposals on both occasions so that resident feedback could be taken into account before submission of the final proposals and the planning application.

Communication with the resident community will continue through the construction phase of the development should planning be granted. The extent to which this is continued during the operation of the facility will depend upon the preferences of the local community, but is likely to follow a similar pattern as the current LCJG, namely once per quarter until such time the group decides that there is no requirement. Britaniacrest will, however, be pleased to support the continuation of a liaison associated with the 3Rs development at the frequency the CLG decides.

3.3. Business community

Local business neighbours in the Langhurstwood Road Wealden Brickworks industrial area, which are the immediate neighbours of the applicant site, were also engaged.

Local business links had started to be identified in 2016 and various contacts have been made including the neighbouring brickworks and the proposed development north of Horsham, which, will be a mixed development with a range of industrial, office and business premises together with shops and extensive housing.

There is also the potential for the 3Rs facility to provide local heat or power to nearby businesses or homes. At this early stage, work has only been undertaken to scope out the potential and likely locations. This information will feed into the detailed engineering design to optimise where possible local heat and/or power supply may be. Further details on regeneration benefits of the scheme are set out in the Planning Statement.

3.4. Planning Authority

Britaniacrest has met with West Sussex Planning Department a number of times since 2016 to discuss the proposals and ensure the scoping of the Environmental Statement is appropriate for this application. A copy of the Scoping Opinion and the Comments from the planning authority is presented in the Planning Statement.

4. General communication tools

The general communications provided by Britaniacrest to engage the wider community include a website, enquiries, newsletter, social media, mailing lists and information in the press.

4.1. Website

Communication via the Internet is now an accepted route by both young and old alike. It provides information instantaneously on request and therefore a website is a key communication tool.

The Britaniacrest website (http://www.britaniacrestrecycling.co.uk) has been in operation for a number of years, set up to be easy to navigate and since its inception, has incorporated information about the site and the Langhurstwood Community Liaison Group since August 2015 titled “Wealden Works”, and can be found on: http://www.britaniacrestrecycling.co.uk/wealden-works-clg.

The website also includes a dedicated page about the proposed development of the application site on: http://www.britaniacrestrecycling.co.uk/wealden-works-dp including adverts about the public exhibitions, site specific newsletters and graphic panels. Shortly after submission the final planning application’s relevant supporting reports will also be uploaded to the website, as was done previously in 2016. This will provide in one easy-to-find location all the relevant historical information together with the new proposals in this planning application. The website has been designed to provide timely information that is easy to digest or more detailed information for those who wish to know more.

The website will continue to contain a project-specific page on the 3Rs Facility proposed, in addition to the site’s existing activities to enable quick and easy access for all. The website will continue to be updated regularly to ensure it is up-to-date and relevant and includes relevant literature and the latest news and contact details. See Appendix 3 for copy pages from the website.

4.2. Enquiries

Britaniacrest operates a policy of responding to all enquiries promptly and within 48 hours on a normal working week. Enquiries can be received by phone,

post, or email. There is also the ability to raise comments or queries directly to Britaniacrest from the website through the contact page section. Contact details are printed on relevant literature.

It is hoped that in responding promptly and completely, the public can be assured of Britaniacrest's best intentions at all times. All communication is welcomed. Britaniacrest's good neighbour approach is already very evident in their housekeeping of the site and consideration given to their neighbours by litter picking on Langhurstwood Road so far as health & safety considerations permit, even though all the vehicles unloading at the adjacent MBT/AD plant and landfill site are also using this road. Britaniacrest looks forward to responding to queries, requests for information and general discussion about the proposals.

To date, comments received have been predominantly supportive. The second round of consultation in particular showed a marked increase in the number of people attending the public exhibition days and also an overwhelming majority significantly being in support of our proposals.

Britaniacrest has produced an A4 newsletter titled 'Britania Bulletin'. The first issue was circulated in early October 2016 to inform people about the 3Rs proposals and invite residents, businesses and all those interested to the public exhibition to find out more.

A second Britania Bulletin was produced in January 2018 to update people on how the feedback given at the last exhibition has changed the new proposals; and provide summarised information about the final submission and invite them to attend the public exhibition, which took place in late January 2018.

The audiences for the publications are the target groups described in Section 4 above and other individuals on a requested basis. Where possible, articles in the newsletter will respond to the interests of the groups identified.

The distribution list has and will continue to grow with time as more people ask to be put on the mailing list. These newsletters will predominantly be distributed via email and are also uploaded onto the website. Hard copies were available at the exhibition and at the Horsham library and are available on request. Anyone can request to be added to the circulation list.

The contents of Britania Bulletin have included and will continue to include an update on the development proposals for the 3Rs Facility, giving progress on the different stages of the project from pre-planning, submission of the application through to its determination. Should the application be successful, it will continue to provide information on development timescales in the construction phase. The aim is to provide the reader with an overview of what's happening.

A mailing list was started in August 2015 to ensure everyone who expresses a wish is kept informed about the site. The site is currently operational as a waste recycling, processing and transfer station handling both commercial and domestic waste and the mailing list will be maintained as the 3Rs Facility

is developed subject to receiving a positive determination of the application.

Initially details pertaining to the Community Liaison Group were provided. Mailings will now also provide updates such as the Britania Bulletin newsletter. This is for the benefit of local residents in particular, so there is no need for them to keep checking the website to see if there is any new information on the 3Rs project.

This mailing list is being added to all the time and will continue to ensure all those who want to be informed are kept up-to-date.

4.5. Press

To ensure that the public receive factual and accurate information, Britaniacrest works with the press, providing them with the information they request to ensure a balanced debate about both current operations on the site and the proposals for the 3Rs facility. Quick and accurate response to all media enquiries is a priority.

5. Targeted engagement

For the local residential and business community around the site a more extensive and targeted approach of communication is being implemented to ensure local people are informed and given the opportunity to find out more, contact Britaniacrest and/or meet representatives face to face. This is being done to ensure a robust community involvement exercise has been delivered prior to planning submission in 2018. This has been ongoing since 2016. Key aspects of the community involvement are detailed below:

5.1. Public exhibition and Graphic Panels

An exhibition was held at the Roffey Millennium Hall, Crawley Road, Horsham, on 26th and 27th January 2018 on the new proposals prior to finalisation of the subject planning application so that feedback and views could be taken into account. A previous public exhibition on the proposals for developing this site was held on 7th and 8th October 2016. At both exhibitions information panels were exhibited providing details of the development, and images of these were also placed on the website. As stated above, copies of the latest newsletter were also available at the exhibition and for viewing and downloading from the website along with the adverts and information at the library.

The aim of both exhibitions in October 2016 and January 2018, was to give local people the opportunity to find out more about the proposed 3Rs Facility and the development prior to the planning application being submitted. Britaniacrest continues to ensure that local residents and businesses had and continues to have the opportunity to feedback their views, obtain answers and/or reassurances and make their views known at a decision-making level. By on-going consultation from 2016, which included the first exhibition in October that year, and a variety of subsequent communications with various residents,

businesses, councillors and officers, Britaniacrest has obtained comments on the plans at every stage and took those comments into due consideration in finalising the current planning application.

The first exhibition was held in 2016 on Friday 7th October evening between 5.00 – 7.00 pm and Saturday 8th October morning between 10.00 am and 1.00 pm.

Due to the success of the first exhibition, the second exhibition followed a similar pattern and was held on Friday 26th January between 4.00 – 7.00 pm and on Saturday 27th January between 10.00 am and 1.00 pm. The timings for both were to give people the best opportunity of attending.

Key staff were on hand at all exhibition sessions to show visitors around the information panels and to answer their questions. There was also supporting literature, maps and photomontages giving potential real life views from various locations,

The content of the exhibitions were comprehensive, although not too technical, and covered the following subjects:

- the size of the waste problem in the UK;
- an introduction to Britaniacrest;
- the site history;
- how Britaniacrest has listened to the initial round of consultation in 2016 and significantly reduced the height of the building as a result of that consultation
- the new proposals;
- key benefits of the new proposal compared to the current operations on the site;
- traffic impact,
- architecture, including two design options - Rectilinear and Curvilinear - with various colour chart combinations showing scale drawings of the proposed 3Rs facility;
- Photomontages from various views of the landscape with the 3Rs facility shown to scale in the respective settings.
- site layout;
- process flow diagram; and
- the approvals process – both planning and environmental permitting.

See Appendix 2 for copies of the banners and photos of the two sets of exhibitions.

Attendance throughout the two-day exhibition in October 2016 was steady and a good turnout of about 32 people on Friday and a further 23 on the Saturday, ie 55 in all.

Attendance at the second two-day exhibition, which took place on the 26th and 27th January 2018, was much increased compared to the first. There was a much greater flow of people throughout the two days with over 50 on the Friday and over 80 on the Saturday, over 130 in all. Out of all those that attended the

two-day exhibition in 2018, 112 people were prepared to leave information of where they live. To give an indication of the spread and reach of interest in the Horsham area, the map in Figure 1 below depicts their rough location spread.

At the second exhibition there was clearly a greater interest from attendees to fill in feedback forms and a total of 26 written responses were received at the exhibition.

The reason for the increased attendance is not known, but the impression gained from those in attendance at the exhibitions was that there was a greater awareness of the proposed development and the reason for it by those visiting the exhibition and a greater willingness to express views and enter into discussion on the proposals. The effective outreach of the second exhibition was greater than the first, with even a national trade magazine requesting information and a person who received the notification in Dublin attending the exhibition.

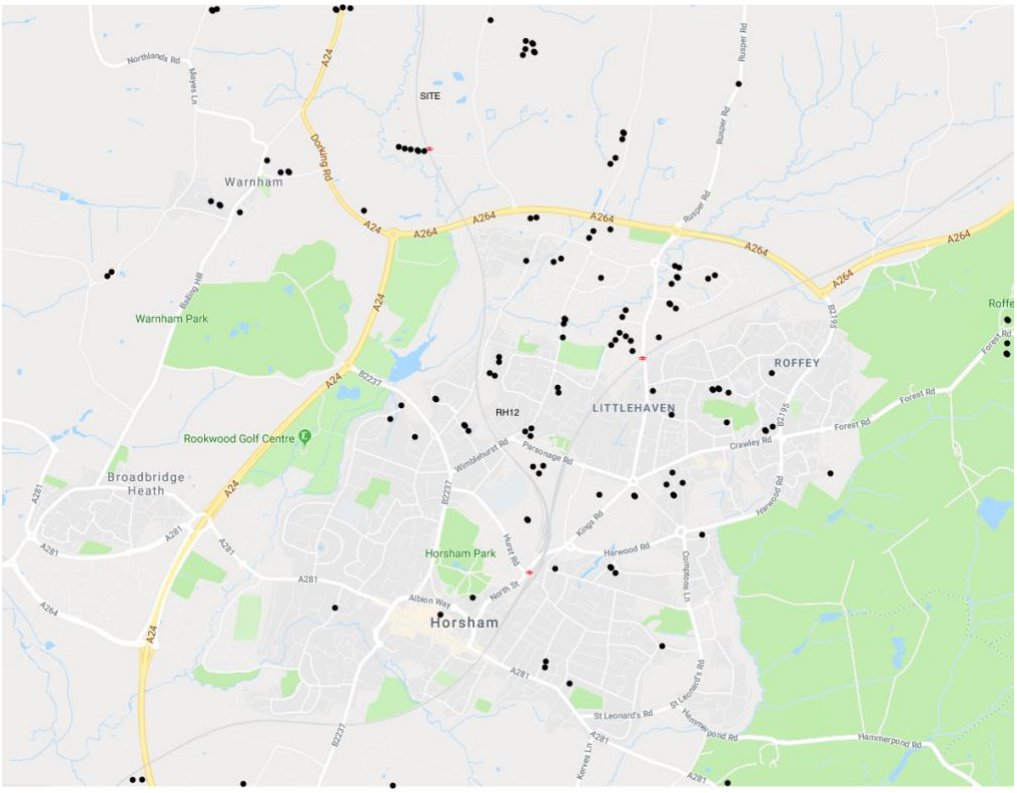

Figure 1 - Map of approximate locations of attendees to the 2018 exhibition, who gave address details

Visitors had heard about the exhibition through a variety of different ways, including the local parish council - who were sent a copy of the newspaper advert in advance of the exhibition, adverts in the District Post and County Times (placed by Britaniacrest), Facebook, other social media and/or leaflets through the door.

Britaniacrest approached Horsham Library in 2016 with a request to display a few panels and newsletters in the library. Unfortunately it was felt by the Library that the topic of the display did not fit in with the Library Service Policy. Prior to

the second exhibition, however, Horsham Library agreed to display a poster and provide leaflets for all to see and help themselves to, that came to visit the library. The Britania Bulletin leaflets were available at the library for the public to read and take from 19th January and a poster also promoting the exhibition was put up on the 22nd January before the exhibition.

5.2. Community Liaison Group

As part of the open approach to local residents and businesses to find out more about operations on the site, as described above, the extant local community liaison group was used as one of the vehicles for targeted engagement. The groups regular meetings have been attended by Britaniacrest senior management since August 2015 and since January 2016 the meetings have included an item on the agenda covering the 3Rs Facility and when applicable, discussions and presentations on the development have been held. To date there have been 8 meetings held since the proposals were first presented, with representatives present from the local community, the parish councils, Horsham District Council and West Sussex County Council. Proceedings have been reported on the dedicated page on the Britaniacrest website http://www.britaniacrestrecycling.co.uk/wealden-works-clg.

5.3. Leaflet drop

Although there was no prescribed requirement to carry out a leaflet drop, Britaniacrest felt it was appropriate nevertheless to ensure that neighbours were informed about the forthcoming exhibitions, rather than just rely on the more general communication that was undertaken. As a result a leaflet drop of the Britania Bulletin issue 1 newsletter was undertaken to all homes in Langhurstwood Road and Station Road. Prior to the second exhibition the area of distribution was increased to include properties in Mercer Road, Bell Road, the east side of Church Street and Wyvern Place, in Warnham.

Britaniacrest undertook this task themselves for two reasons: (a) due to the isolated nature of the local residential area and limited number of houses in the area close to the site; and (b) to ensure that there was no doubt that the leaflets were delivered. All businesses in Langhurstwood Road also received the Britania Bulletin.

5.4. Advertisements

To raise the maximum possible awareness of the proposed development it was decided in consultation with the Liaison Group to advertise the public exhibition in the District Post and the West Sussex County Times. The West Sussex County Times is a paid for paper which has a circulation across the West Sussex area. http://www.jplocalbusiness.co.uk/about/?ref=WSC

For the first exhibition in 2016 adverts were placed in the District Post - which comes out on a Friday - on the 30th September (on the Friday 7 days before the exhibition) and the West Sussex County Times - which comes out on a

Thursday - on 6th October 2016 before the exhibition. Along with their online publications too.

For the second exhibition n 2018, adverts were placed in the District Post – again a whole week before the exhibition ie Friday 19th January. And for the West Sussex County Times Britaniacest doubled the advertising to two Thursdays prior to the exhibition – namely the 18th January and then the 25th January 2018.

In both cases these timings were advised by each of the papers in question to give optimum outreach, and hopefully the best possible turnout to the public exhibition. See Appendix 3 for copies of the adverts.

In addition, the County Times ran an article on the proposed development and both newspapers have an online presence and gave coverage on websites about the exhibition. The County Times claims a digital audience of around 50,000 a month. Furthermore both papers shared details about the exhibition on their social media site.

5.5. Facebook

Social media in recent years has also become a much-used form of communication by a variety of groups within the community. This ranges from keeping in touch with friends both near and further afield, chatting online with friends or various groups and is often a useful way to find out what is going on in the local area. To a lesser extent it is also used by businesses as a means of promotion.

One key feature of Facebook is that it revolves around people sharing information. Therefore, to reach a broader and perhaps also potentially younger section of the community, Britaniacrest posted the advert informing about the forthcoming exhibition on the Britaniacrest Facebook page in advance of both exhibitions.

For the first exhibition this was posted on 30th September 2016 which received 25 likes and 3 shares by the local community. This Facebook page had 179 followers (likes) at the time. This was far more successful than Britaniacrest had hoped or expected. The Britaniacrest advert post was shared by the Horsham community Facebook page on the 1st October 2016. This site has an amazingly high number of followers totalling 27,006 followers (likes).

For the second exhibition the advert was posted on 17th January and received 13 likes with 3 further viewer shares posted on 22nd, 23rd and 25th January and included 4 further engagements on this facebook page, which now has 206 followers as of January 2018.

As before, details of the exhibition were posted on various other local facebook pages. The largest of these pages was the Horsham Community Facebook page which now has a large following of 27,425. To view the Horsham Facebook

page visit: https://www.facebook.com/horsham.uk/?fref=ts

Various other facebook pages promoted the exhibition too, with a further potential reach of around 15,200.

In summary, through social media alone there has been a significant number of people potentially reached in the Horsham area via a number of different community Facebook pages alone, and potentially on a number of different occasions leading up to the exhibition. With the number of households in Horsham being around 21,000 and a population of 49,000 makes this a substantial outreach into the local Horsham community.

To view the Britaniacrest facebook page visit: https://www.facebook.com/search/top/?q=britaniacrest%20recycling%20ltd%20%200129 3%20820021

6. Communication during the construction phase

6.1. Presentations, talks and visits

Britaniacrest believes in a pro-active approach to communication with all interested parties. It will, therefore, support presentations, talks and site visits during construction and operation of the facility with the co-operation of the relevant contractor and/or operating company. Of course, due consideration will need to be taken into account of site constraints and health and safety, and all appropriate safety equipment will need to be worn for site visits particularly during the construction phase.

6.2. Schools programme

The opportunity of creating links with local schools and colleges is something Britaniacrest would be happy to pursue if there is sufficient interest. It is, however, conscious of the pressure on teaching staff presented by the core curriculum and therefore will be led by the schools' preferences. The proposed development does, however, provide a unique opportunity for educational establishments close at hand to gain a practical understanding of the science and engineering, and various craft and trade skills involved with such a development. This can complement the classroom environment through a programme including site visits, talks and presentations from industry covering careers across the spectrum of employment possibilities.

The details of such a programme will need to be developed closely in partnership with each school or college to provide added value to their training and career development programmes.

7. Once operational

Once operational the facility will be able to cater for visitors for talks and tours of the

site. This will be utilised to promote recycling and recovery of waste to residents and businesses, schools and other interested parties.

Likewise, there may be a desire to continue with e-newsletters of Britania Bulletin along with the continuation of the community liaison group. In any event, the website will be maintained regarding the 3Rs Facility and kept up-to-date. Information about how the facility is operating, including emissions monitoring data, will be available on-line.

8. Summary

It is considered that the extent and variety of community engagement undertaken by Britaniacrest for the 3Rs Facility planning application has fully complied with the intent of the West Sussex Statement of Community Involvement and the ethos behind it, to provide open and honest information, to facilitate comment and input by residents.

Britaniacrest started communications about the existing use of the site in August 2015 and specifically its development plans for the proposed development at the site liaison group in January 2016. Communication with the public at large commenced in October 2016 and included two sets of two-day exhibitions. Britaniacrest has given consideration to comments received throughout the process, together with various other communications with local residents, businesses, councillors and officers. This community engagement over time has shaped the proposed development taking into account the opinion made by residents and the councils overwhelmingly wishing the building height to be as low as possible. This involved significant engineering redesign of the Facility, and a reduction of 16% from the 2016 design has been achieved.

Britaniacrest has truly sought to engage the local community and this is exemplified by the extensive outreach to local residents via the different methods deployed such as exhibitions, adverts is press, website, leaflet drops, Horsham Library, and facebook posts, which together with social media interaction has substantially increased community awareness and engagement.

In carrying out its Community Engagement Strategy, Britaniacrest has followed the principles set out by the Good Practice Guide as follows:

Research & Analysis – Engagement with the liaison committee commenced prior to the proposed development being formulated. Consequently basing the communication strategy around the committee was a natural development as it allowed the motivations, concerns and needs of residents that would live in the immediate vicinity of the proposed development to be identified at an early stage. It was also possible to share and discuss the objectives of the development.

Relationship building, knowledge and skills – the liaison committee allowed links with key groups and individuals to be developed and led to the consultation programme to be extended to the parish councils at an early stage.

Communications – care was taken to ensure that all communications were clear, in

plain language and accessible. Bulletins, social media, newspaper advertisements and display panels were used to provide sufficient information to tell people what they wanted to know, and to give a choice to decide whether or not to engage. Although the development inevitably includes a technically complex plant and machinery, as many options of choice were left open for discussion as possible throughout the consultation phase.

Timing – where possible a clear timetable for the project has been communicated at the various stages. Notification of the public exhibitions held followed advice from the media on timing of announcements so that residents had the opportunity to make arrangements to attend the events, without the notice period being so long that they forgot. At the exhibition held in January 2018 two design options were presented. It also followed with further consultation with WSCC and Horsham DC. The design was finalised following the public exhibition and the subsequent discussions.

Inclusive – the public exhibitions on both occasions were held at the Millennium Hall, Roffey due to its relatively close proximity to the development site. This was to ensure that that a wide community view was heard, including under represented individuals and groups local to the development to ensure that groups specific to particular locations or locations that are remote from the development were not given undue weight of opinion and that all had an equal opportunity to be heard.

Monitor and evaluate - engagement was monitored as described in this report. It is considered that from the attendance at the public exhibition in January 2018, a representative level of outreach across Horsham and Warnham was achieved. Both verbal and written comments have been received during the consultation process, and as a result the design and colour scheme of the proposed development has been modified substantially. Attendees at the public exhibitions were requested to complete comment forms. Of those that did, there was a consensus in favour of the development and an attitude towards the development in stark contrast to that received at the public exhibition held in October 2016.

Continuing to engage – the Britaniacrest Community Engagement Strategy plans for continued engagement throughout the planning process and into construction and operation, subject to planning permission being granted. Engagement with the liaison committee will continue on the ongoing operation of the current site, regardless of the outcome of this application.

Learn from the process – the public engagement process on the proposed development commenced in early 2016. It has been as a result of this extended consultation that the design of the proposed development is what it is. As a result of feedback from the consultation process, the height of the main buildings have been substantially reduced and colour schemes have been adopted that are far more harmonious with the local landscape than was initially the case. The consultation process has been effective in influencing the proposal to produce what is considered to be a greatly improved solution.

To date feedback on the 3Rs proposals received has been on balance supportive and with the revised proposals this has increased. Local opinion has been considered and where possible taken on board. There was also a clear understanding emerging at the second exhibition that facilities such as the 3Rs Facility are required to deal with waste in and around West Sussex,

especially as landfill is now no longer available locally. There is also recognition that the development is in a location that has been handling waste for a considerable period of time.

There were a number of queries regarding the visibility of the building from different viewpoints. Photomontages were available for residents to assess the visual impact of the 3Rs Facility for themselves at both exhibitions. Residents were also presented with two alternative design options (rectilinear or curvilinear) with almost all expressing a preference for the curvilinear design. There were also queries about the reduction of building height and the height of the chimney, seeking assurances that the facility would comply with the regulations in terms of emissions and some residents expressed a wish for monitoring data to be readily available too once the 3Rs Facility was operational.

9. References

- West Sussex County Council "Statement on Community Involvement (Second Review)" June 2014

- Planning Aid ."Good Practice Guide to Public Engagement in Development Schemes" RTPI 2012 http://www.rtpi.org.uk/media/20220/Good%20Practice%20Guide%20to%20Public%20Engagement%20in%20Development%20Scheme,%20High%20Res.pdf

Appendices

Appendix 1

Exhibition attendants written comments

Summary of feedback statements received at Public Exhibition 26 & 27 January 2018

RH12	Aesthetics a red herring Exhibition did not show any advantage for Horsham/Crawley Technology is uncertain Emissions will impact local population Height of chimney does not guarantee lower pollution No advantage for local residents	Negative
RH12	Understand and approve of incinerator if no noxious gases But do not like site Brutalises countryside and will impact new housing Nowhere else to go?	Positive but site negative
RH12	Fascinating presentation Site not suitable as impacts new housing Should be further away from population	Negative
RH13	Impact of hard Brexit should be made known to the Government Hope North Horsham housing not allowed to come close to site Prefer curvilinear option Improvement to environment is needed	Positive
Horsham	Excellent presentation Main concern was environmental, but all questions answered in full No concern with project going ahead Would like a bright colour scheme	Positive
RH12	Why commercial waste centre near new housing & schools development? What about health?	Negative
RH12	Concerns: Height of plant and chimney Site close to residential development 3% residues may release carcinogens What long term studies are there on impacts Site in more remote location	Negative
Horsham	Curved roof a significant improvement Much more in keeping with a modern development Rectilinear not design supported	Positive

RH12	In favour Curved roof preferred	Positive
RH12	Building very tall Will improve smells as no landfill	Positive
RH12	Can ZTV map be shown on website?	Neutral request
RH12	West Sussex needs this facility Exporting waste is appalling Could provide power for most of Horsham No health concerns We need to sort out our own waste	Positive
RH13	Committed recycler concerned about the amount of landfill Supports recovery of waste Concerned that the building is ugly, pollutants and no. of vehicles. Support proposal if above issues are properly addressed. Preferred a larger room as people were standing in way of the display boards	Positive
RH12	"A much softer site" What happens after 5 year contract expires?	Positive
RH12	Development unwelcome Site unsuitable Emissions a danger Totally against	Negative
RH12	All lorries will go down Langhurstwood Road, which has no footpaths Suggests: build new road through N Horsham development or a new road directly off A24 over railway.	Neutral
RH12	Please use curvilinear design	Positive
RH12	Excellent structure, badly needed in West Sussex Prefer curvilinear design Hopeful that the community will see advantages Is the site large enough for future expansion?	Positive
RH13	Consider small areas of brighter primary colours to highlight key points (of the structure) Have a green roof (not industrial cladding) Break curvilinear roof to lower the lower lying buildings	Positive
RH12	Why export fuel to Germany? Need cycle paths to protect cyclists from lorries Love to see how refuse is mechanically recycled for recyclables	Positive

	Vote for the curvilinear roof	
RH12	Want clarity on smells	Neutral
RH12	Good exhibition – liked viewpoints to see what visual impacts will be. If only Liberty had bothered to do the same. Like to see the existing community benefit in some physical way.	Positive
RH12	Viewing platform at top of stack	Positive
RH13	Rainwater harvesting	Positive
RH13	Congratulations it is a perfect project. I wish you the best; to see you there in the near future. I will be very happy, many thanks. Very Interesting!	Positive
RH12	Based on images displayed suggest that building should have the curvilinear roof and the building coloured 'green' to blend in with the surrounding countryside better.	Positive

Appendix 2

Britania Bulletin newsletters

Issue 1 – October 2016

Britania Bulletin

Keeping you informed

This newsletter has been written to keep you informed on our proposals to develop the site of the former Wealden Brickworks off Langhurstwood Road for a Recycling, Recovery and Renewable Energy (3Rs) Facility.

Introducing Britaniacrest

Britaniacrest Recycling Ltd is a family business employing over 95 staff within the local area and was formed in 1993 by Ray Foss. The family has over 40 years of experience in waste recovery, recycling and haulage, providing an affordable and professional skip hire and waste management service to local residents and businesses. Britaniacrest Recycling has grown from strength to strength to become one of the south's leading private waste management companies.

Site history

The site has a long industrial history dating back to medieval times and is situated on the former Wealden Brickworks off Langhurstwood Road. Bricks are still manufactured on the adjacent site and it sits alongside the mechanical/biological waste treatment plant operated by Biffa with the Brookhurst Wood landfill site about 900m away. Since 2015 the site has been handling waste materials from local businesses and the district council for processing. The site currently has planning approval to handle 230,000 tonnes a year of industrial and commercial waste.

Local exhibition 7th & 8th October - see Page 2.

New proposals

Britaniacrest Recycling proposes to submit a planning application for a 3Rs Facility. This will take commercial and industrial waste or similar, and sort and segregate materials such as metals, plastics and rubble and recover their value using the latest sorting technology. The residual material left over will be used to produce energy using well established and proven thermal treatment technology. Electricity will be exported to the local electrical grid - enough to power a small town. These processes will provide a sustainable alternative to landfill disposal, avoid the use of fossil fuels and save primary materials.

The planning application will be submitted this winter 2016 to West Sussex County Council.

BRITANIACREST RECYCLING

BRITANIACREST RECYCLING

Keeping you informed

Key facts

- Capacity for waste treatment on the site is unchanged
- Site staff of circa 35 permanent positions
- Recovery of materials for recycling
- Generation of around 21 Megawatts of electricity, enough to provide heat, light and power for more than 42,000 homes
- Around 180,000 tpy being used to generate energy rather than going to landfill
- Diversion from landfill of over 90%

There is a real need for 3Rs facilities and this new proposal provides the necessary infrastructure required to support local businesses.

The application process

Various specialist studies are being carried out and the planning application being prepared for submission to West Sussex County Council.

Before the facility can become operational, in addition to the planning permission from the County Planning Authority, an environmental permit will need to be obtained from the Environment Agency and building control approval given by Horsham District Council.

Details of the final proposals will be available on our website.

Find out more

To find out more please do not hesitate to contact us via our website http://www.britaniacrestrecycling.co.uk/wealden-works-dp or call 01293 820021.

Local exhibition

An exhibition of the development proposals for the site will take place at Roffey Millennium Hall, Crawley Road, Horsham, West Sussex, RH12 4DT on:

Friday 7th October from 5pm to 7pm

Saturday 8th October from 10am to 1pm

Representatives from Britaniacrest Recycling will be there to discuss the proposals for the site and also assist on any employment, contracting interests.

To keep up to date on progress please subscribe to our e-newsletter Britania Bulletin by emailing info@britaniacrestrecycling.co.uk

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Issue | January 2018

Britania Bulletin

Keeping you informed

This newsletter has been written to keep you informed on our proposals to develop the site of the former Wealden Brickworks off Langhurstwood Road for a Recycling, Recovery and Renewable Energy (3Rs) Facility.

Why this Bulletin?

About a year ago Britaniacrest Recycling submitted a planning application to West Sussex County Council (WSCC) for the 3Rs Facility. The development proposed was based on the engineering design available to us at the time, but following consultation with the local community and WSCC, it was clear that there were features of the development that needed to be improved. In consequence, we withdrew the application and have spent the last year working with the architects, engineers and equipment suppliers to improve the proposal.

We have now completed that, and are ready to seek your views once again. The need for the Facility is still there and becoming ever more urgent. So a new planning application is being prepared and will be submitted soon. This bulletin presents our new proposals, but also recalls the background of why we are making the application in the first place.

Site History

The site, which is located off Langhurstwood Road is situated on the former Wealden Brickworks. Its industrial history dates back hundreds of years. Today, bricks are still manufactured on the site next door, and the mechanical/ biological waste treatment plant operated by Biffa sits alongside. The Brockhurst Wood landfill sits about 900m away.

The site has been handling waste materials from local businesses since 2015, and recently has assisted Horsham DC with its recycling vehicles. It is now also receiving waste from the MBT plant, prior to it being exported to Europe - because there are no facilities to treat it in the UK.

The site currently has planning approval to handle 230,000 tonnes a year of industrial, commercial and municipal waste.

A better solution - To enable the development of this site to achieve a more workable and viable facility, a new planning application will be submitted early this year to West Sussex County Council.

The site proposed for development is outlined in red

Britania Bulletin

Use of the current site

The site is currently used by Britaniacrest Recycling for the receipt & transfer of commercial and industrial wastes. It has also acted as a sub-depot of Horsham District Council for its recycling vehicles. Britaniacrest Recycling and its partner, Seneca have now been awarded a 5-year contract by WSCC to dispose of refuse derived fuel from the adjacent MBT plant and this site is being used to facilitate this. The fuel will be exported to Germany where it will be used to produce energy in a similar facility to that being proposed on the Wealden Brickworks site.

The Proposal

The application will be for a Recycling, Recovery and Renewable Energy Facility (3Rs) to accept commercial, industrial, municipal or similar wastes and sort and segregate recoverable material such as metals, wood, rubble and some plastics using the latest sorting technology. The residual materials will be used to recover their energy using a well established and proven thermal treatment process. Electricity will be exported to the local electrical grid - enough to power a small town.

These activities will provide a sustainable alternative to landfill disposal, avoid the use of fossil fuels and save primary materials.

The Combustion Process

After separating out recyclable materials for reprocessing, the remaining waste will enter the combustion chamber where it will be fully burnt. Metals will be extracted from the ash & the ash recycled as an aggregate substitute. The hot gases produced in the combustion process will be used to produce steam to drive an electrical generator and potentially heat for export from the site.

Key Benefits

The key benefits of the Facility once it is built will be:

- Reduction in NOx pollution and climate change impacts
- Construction jobs with a peak of circa 300
- Up to 35 additional permanent jobs
- Architectural design in keeping with the location
- Inclusion of facilities to enable visitors to the site
- Opportunities for education and training
- Additional environmental features such as rainwater harvesting
- Inward capital investment regenerating this historic industrial site
- The potential for local heat and power users

Main Features of the Application

- Capacity for waste treatment on the site will be unchanged
- Around 180,000 tonnes per year will be used to generate energy rather than going to landfill
- Diversion from landfill will be circa 90%
- Includes recovery of materials for recycling
- Generation of around 21 Megawatts of electricity - enough to provide heat, light and power for a small town
- Site staff circa 35 permanent positions

Construction facts

- Industrial construction project of circa 3 years
- Building envelope with offices, internal plant with extensive concrete structures, steel frame and walkways, containing mechanical machinery
- A peak of circa 300 construction site staff, skills: administration, construction, instrumentation, mechanical, electrical and civil engineering.

Architecture

Britaniacrest Recycling has worked closely with the technology suppliers to produce a choice of designs that reduce the height of the building from that previously proposed. The architecture has also been revised to give a less imposing appearance with the objective of providing a design that complements the surrounding landscape setting.

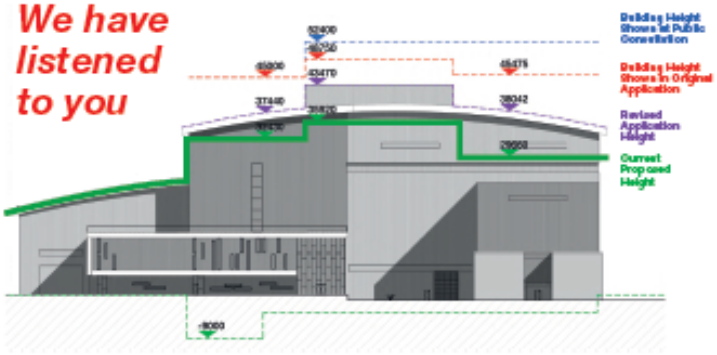
Two new design approaches are being considered:

- *A rectilinear design giving strong, clean lines, with the building mass being broken up by the use of different materials;*
- *A curvilinear design giving a modern, sleek appearance.*

Please let us have your comments and preferences on the design. The final colours selected will be subject to approval by WSCC Planning Department.

Rectilinear

We have listened to you



You Said

'We want the building as low as possible and unobtrusive and of a high quality design reducing its impact on the landscape'

You Said

'It is taking most of the South of England's Waste'

Not at all. There are several similar facilities in the southern counties in Kent, East Sussex, Hampshire and one under construction in Surrey. In fact the opposite is true as there is no such facility yet in West Sussex, which means the county as a whole is exporting waste to other parts of the country and even abroad. Continuing to do this is not a long-term sustainable solution and the UK is effectively supplying the European countries with cheap fuel at the UK taxpayer's expense.

- We have done our best to reduce the height and visual impact of the building so far as the technology and cost of construction allows;
- We have developed two alternative designs to seek feedback on the opinion and preferences of the local community;
- These two designs have reduced the building height from 48.75 metres (16 storeys) to less than 37 metres (around 12 storeys). See the designs below shown on this page.

'We want transparency and best practice in all activities'

- The whole purpose of this brochure and our public exhibition is to tell you what we are doing and to receive your views;
- We have adopted the latest 2017 Environmental Impact Regulations (as opposed to 2015) and added "Population and Health" and "Accidents and Emergencies" to the assessments carried out;
- We are reducing both NOx pollution and climate change impacts compared to current waste management activities around Horsham.

'If built, we want it to process 'our' waste too'

- Britaniacrest Recycling is actively involved in both household and commercial/industrial waste management from within West Sussex and are open to developing this further.

Local exhibition

An exhibition of the development proposals for the site will take place at Roffey Millennium Hall, Crawley Road, Horsham, West Sussex, RH12 4DT on:

Friday 26th January from 4pm - 7pm

Saturday 27th January from 10am - 1pm

Representatives from Britaniacrest Recycling will be there to discuss the proposals for the site and also assist on any employment, contracting interests.

Curvilinear

What about pollution?

Air quality is measured by Horsham District (HDC) 24 hours a day, 7 days a week at three air quality monitoring stations situated in Horsham, Storrington and Cowfold. There is also a network of passive diffusion tube samplers spread across the District. HDC currently monitor levels of two major pollutants: Nitrogen Dioxide (NO2) and particulate matter (PM10). Pollution is a concern for all of us. It is difficult to believe, but the 3Rs Facility will actually help reduce the amount of NO2, particulates and greenhouse gases currently produced in managing waste in the area.

As part of our planning application we have carried out an air quality assessment to ensure that the 3Rs Facility, when fully operational, complies with all relevant regulations, which includes any emissions to air, land and water. These regulations are designed to protect human health and will be monitored and enforced by the Environment Agency - but HDC will also be able to keep a close eye on what the plant is producing.

The 3Rs Facility will have no adverse impact on human health. The gases from the combustion process will be cleaned to meet stringent environmental regulations by being injected with lime to neutralise acid gases, activated carbon to capture organic pollutants and then filtered to remove particulates and dusts. The residues captured by the filters will be taken from site in sealed containers and disposed of at a suitably licensed facility. The remaining cleaned gases will be finally released to atmosphere through the chimney.

Traffic

The 3Rs Facility will operate 24/7, but waste deliveries will be restricted to the period

0730 - 1700 hours Monday to Friday

0730 - 1200 hours Saturday

Closed on Sundays and Bank Holidays.

The site already has planning permission for 123 vehicles per day, and the new planning application will not seek to change this. The proposed operational facility will not generate any additional HGV traffic at any time during the day – and indeed, may even reduce it, because much less material needs to be removed from the site than enters it.

The Approvals Process

As part of the planning application, various specialist studies have been undertaken by qualified experts to ensure the proposals are robust, appropriate and do not cause harm, or undue nuisance to neighbours - be they business, residential or wildlife. These studies include: archaeology, ecology, air quality, emissions, noise, odour, population & health, major accidents and disasters and traffic.

Before the facility can become operational, in addition to the planning permission from the County Council planning authority, an environmental permit will need to be obtained from the Environment Agency and building control approval given by Horsham District Council.

BRITANIACREST RECYCLING

Britaniacrest Recycling Ltd is a family business with over 40 years of experience in waste recovery, recycling & haulage, providing professional skip hire and a waste management service to residents & businesses & employs over 95 staff.

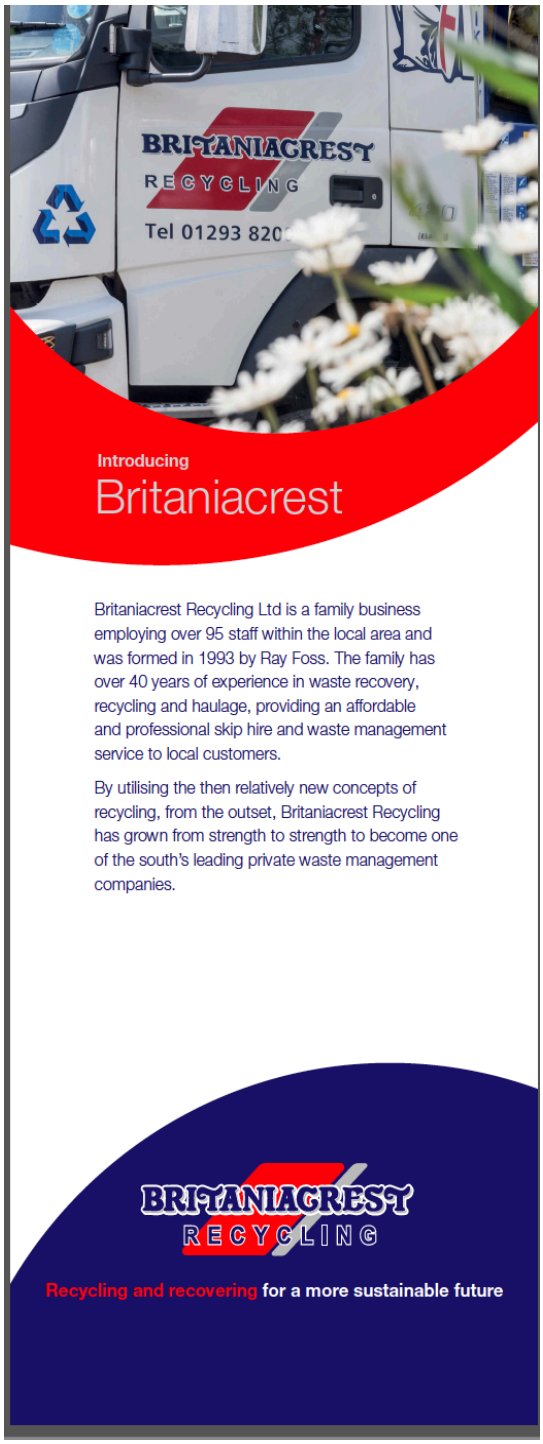
The Company owns the site where the 3Rs Facility is proposed.

To keep up to date on progress please subscribe to our e-newsletter Britania Bulletin by emailing:

info@britaniacrestrecycling.co.uk

Appendix 3

Graphic panels and exhibition photos – January 2018



The
Facts

Whilst the UK has made major strides in reducing landfilling, the facilities that allow this to happen are mostly only available for household waste. There are few facilities for businesses to ensure that their waste is properly recycled and processed, and there is a real shortage of facilities to support the business community – despite there being over twice as much business waste as household.

Annual commercial & industrial waste production in the UK is circa 47 million tonnes, and over 11 million tonnes of waste still goes into landfill every year in England alone. *(DEFRA - Digest of Waste and Resource Statistics 2015)*

Action needs to be taken to deal with this major waste disposal problem.

BRITANIAGREST RECYCLING

Recycling and recovering for a more sustainable future

"and **its not only us** saying it"

Biffa

"Local availability problems will be experienced …and already are being in some areas, particularly London and the South East. There are nine counties already with no landfill capacity at all and five England regions set to run out within the next 10 years, leaving half of English regions with no landfill capacity after around 2027."

The Reality Gap 2017

Suez

"Our projections show that there is a serious long-term shortfall in the UK's vital waste management infrastructure and a potential disaster scenario now looming in the event of a hard Brexit…"

David Palmer-Jones, Suez Environnement

ESA

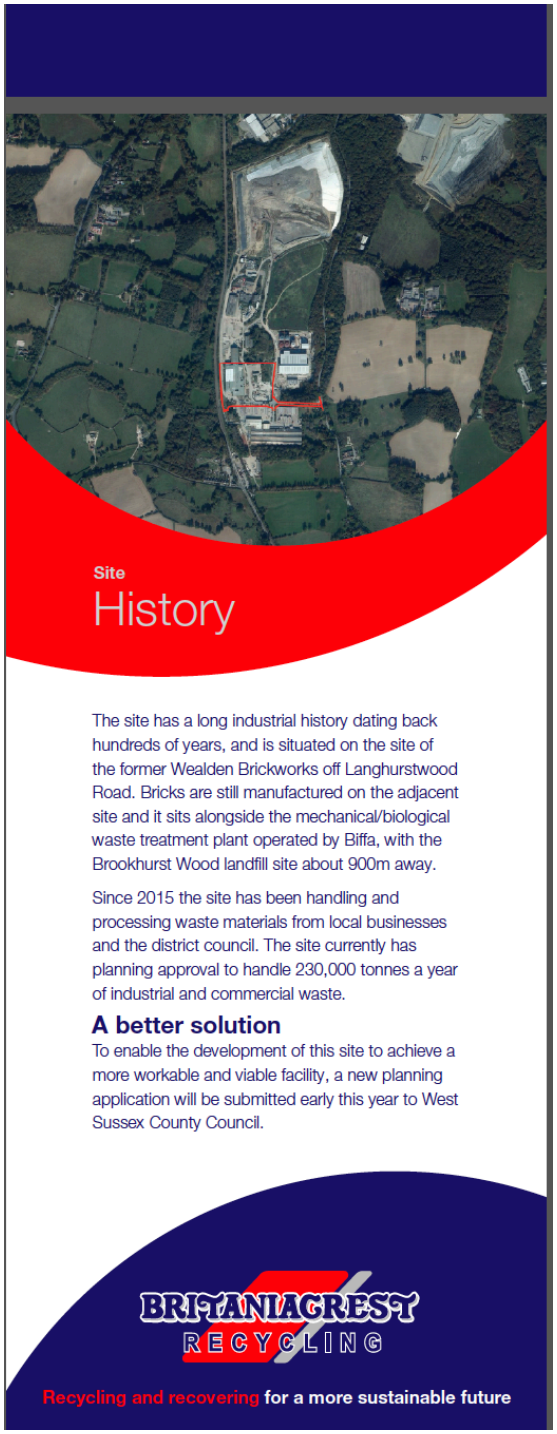
"The consensus position on waste treatment is that we will end up over five million tonnes short of energy from waste capacity by 2030."

"UK is sleepwalking into waste treatment capacity crisis"

Environmental Services Association

BRITANIACREST RECYCLING

Recycling and recovering for a more sustainable future


Site
History
The site has a long industrial history dating back hundreds of years, and is situated on the site of the former Wealden Brickworks off Langhurstwood Road. Bricks are still manufactured on the adjacent site and it sits alongside the mechanical/biological waste treatment plant operated by Biffa, with the Brookhurst Wood landfill site about 900m away.
Since 2015 the site has been handling and processing waste materials from local businesses and the district council. The site currently has planning approval to handle 230,000 tonnes a year of industrial and commercial waste.
A better solution
To enable the development of this site to achieve a more workable and viable facility, a new planning application will be submitted early this year to West Sussex County Council.
BRITANIAGREST
RECYCLING
Recycling and recovering for a more sustainable future

Use of the

current site

The site is currently used by Britaniacrest Recycling for the receipt and transfer of commercial and industrial wastes. It has also been acting as a sub-depot of Horsham District Council for its recycling vehicles. Britaniacrest Recycling and its partner, Seneca have also been awarded a 5-year contract by WSCC to dispose of refuse derived fuel from the adjacent MBT plant and this site will be used to facilitate this. The fuel will be exported to Germany where it will be used to produce energy in a similar facility to that being proposed on the Wealden Brickworks site.

BRITANIACREST RECYCLING

Recycling and recovering for a more sustainable future

The Proposal

The application is for a Recycling, Recovery and Renewable Energy Facility (3Rs). This facility will accept commercial, industrial, municipal or similar wastes and sort and segregate recoverable material such as metals, wood, rubble and some plastics using the latest sorting technology. The residual materials will be used to recover their energy using a well established and proven thermal treatment process. Electricity will be exported to the local electrical grid - enough to power a small town.

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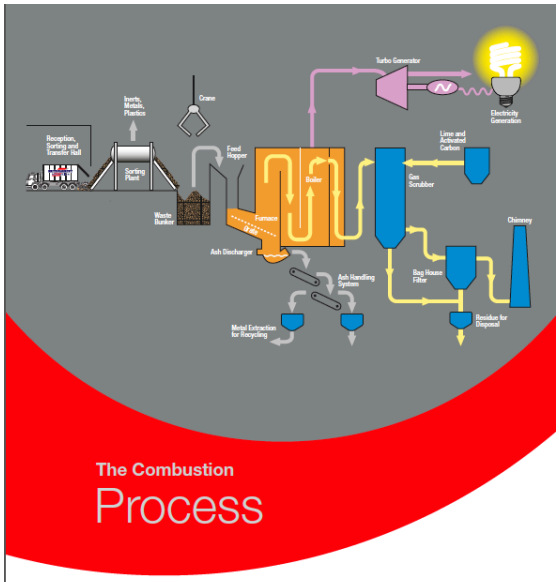
Recycling and recovering for a more sustainable future



The Combustion Process

After the sorting and materials recovery process the remaining waste will be deposited in a bunker. A crane will grab the waste and place it into a feed hopper where it will pass down into the combustion chamber. The action of the grate will turn the waste to allow it to burn fully. The resulting ash will then have metals extracted for recycling before itself being recycled for use as an aggregate substitute - principally in road construction.

Hot gases produced in the combustion process will pass through a water-tube boiler, where they will be cooled. The heated water then becomes steam. A turbo-generator will use the steam to produce electricity and potentially heat for export from the site.

The gases from the boiler will then be cleaned to meet stringent environmental regulations by passing through a gas scrubber, where lime milk is injected to neutralise acid gases, activated carbon is added to remove other pollutants and then a filter to remove particulates and dusts. A small amount of residue (around 3% by weight) will be collected from this cleaning process, and exported from site in sealed containers to a suitably licensed disposal facility. The remaining cleaned gases will be finally released to atmosphere through the chimney.

BRITANIACREST RECYCLING

Recycling and recovering for a more sustainable future

Key
Benefits

- Reduction in NOx pollution and climate change impacts
- Construction jobs with a peak of circa 300
- Up to 35 additional permanent jobs
- Architectural design in keeping with the location
- Inclusion of facilities to enable visitors to the site
- Opportunities for education and training
- Additional environmental features such as rainwater harvesting
- Inward capital investment regenerating this historic industrial site
- The potential for local heat and power users.

To find out more ask a member of staff or express an interest at

http://www.britaniacrestrecycling.co.uk/wealden-works-dp

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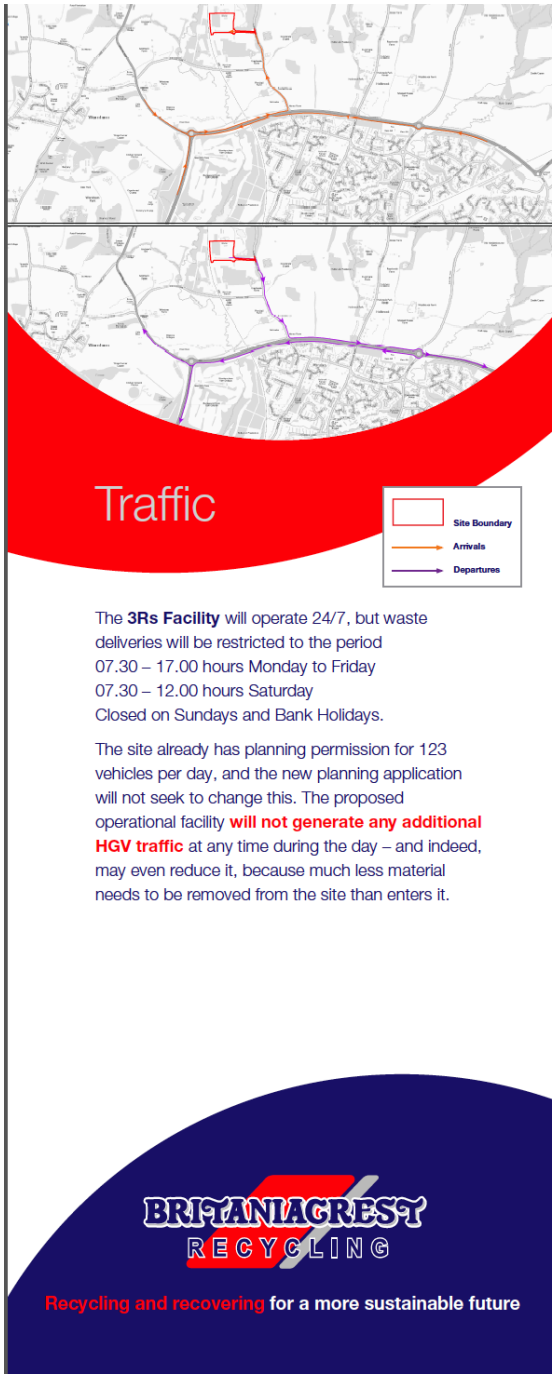
Recycling and recovering for a more sustainable future


Traffic
Site Boundary
Arrivals
Departures
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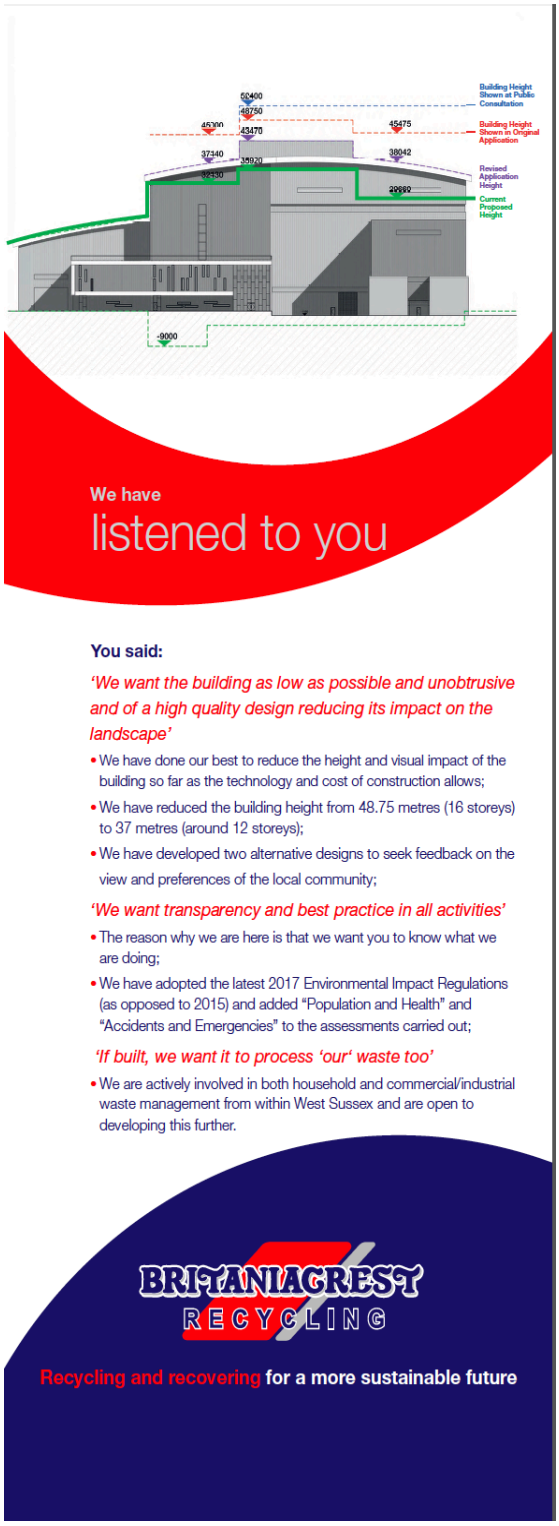
50400
48750
45300
43470
45475
37340
35920
38042
32430
29680
-9000
Building Height Shown at Public Consultation
Building Height Shown in Original Application
Revised Application Height
Current Proposed Height
We have
listened to you
You said:
'We want the building as low as possible and unobtrusive and of a high quality design reducing its impact on the landscape'
• We have done our best to reduce the height and visual impact of the building so far as the technology and cost of construction allows;
• We have reduced the building height from 48.75 metres (16 storeys) to 37 metres (around 12 storeys);
• We have developed two alternative designs to seek feedback on the view and preferences of the local community;
'We want transparency and best practice in all activities'
• The reason why we are here is that we want you to know what we are doing;
• We have adopted the latest 2017 Environmental Impact Regulations (as opposed to 2015) and added "Population and Health" and "Accidents and Emergencies" to the assessments carried out;
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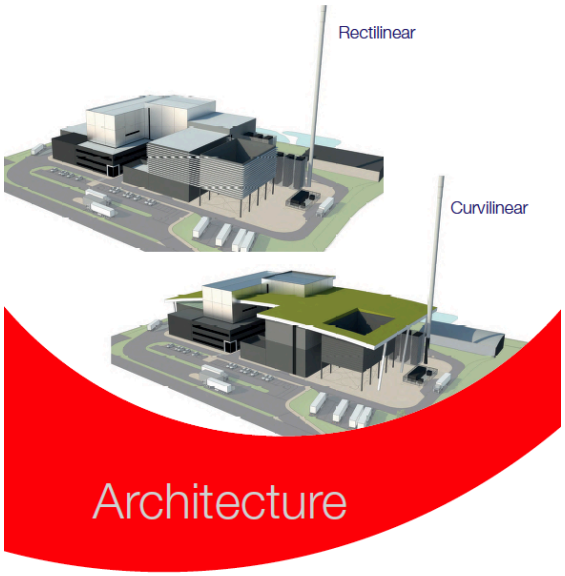
Recycling and recovering for a more sustainable future



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Please let us have your comments and preferences on the design.

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Recycling and recovering for a more sustainable future

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Approvals
Process
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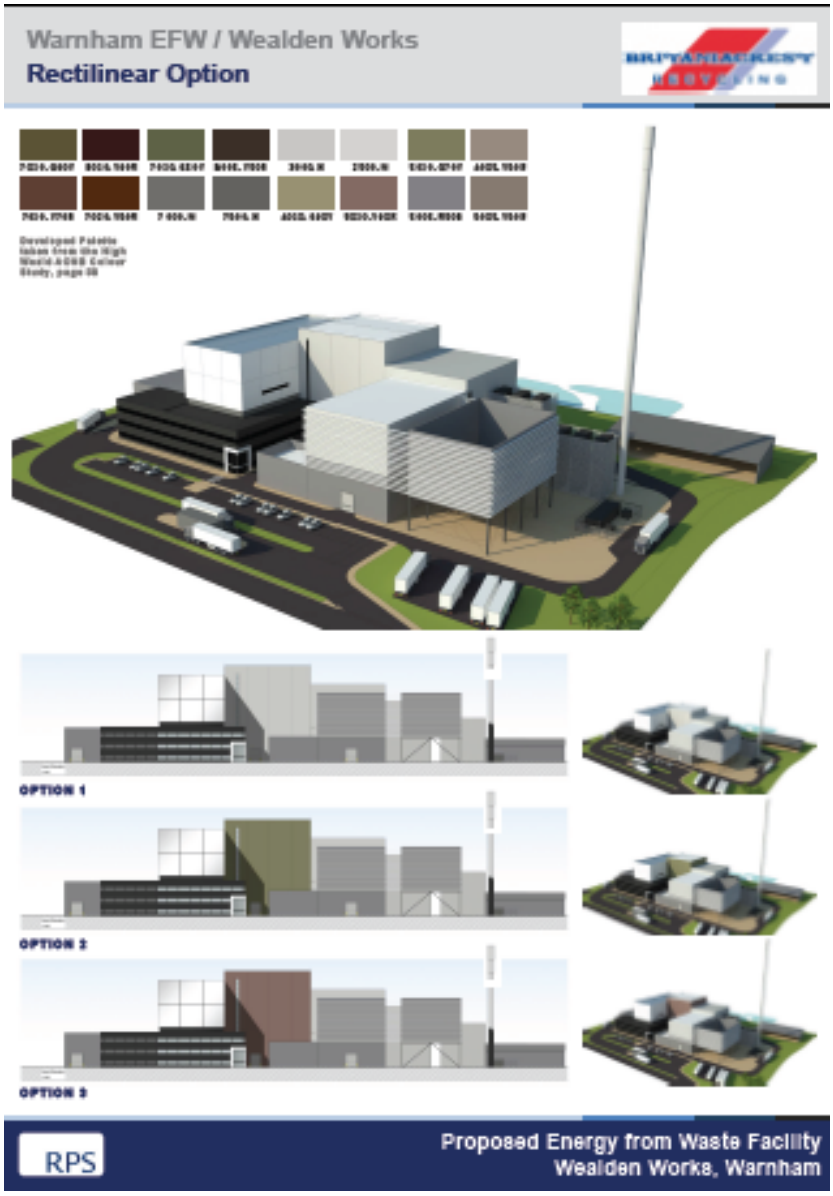

Warnham EFW / Wealden Works
Rectilinear Option
OPTION 1
OPTION 2
OPTION 3
RPS
Proposed Energy from Waste Facility
Wealden Works, Warnham

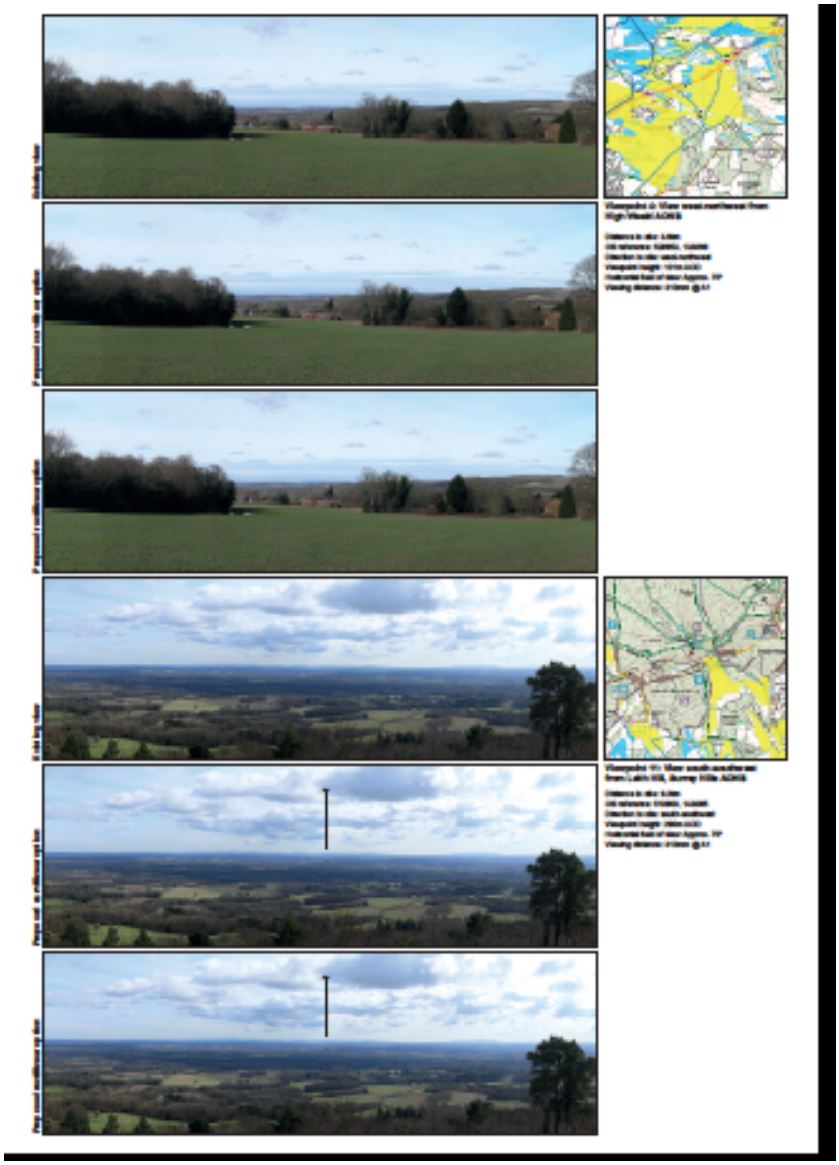
Wealden Works 3Rs Facility
Curvilinear Option
OPTION 1
OPTION 2
OPTION 3
RPS
Proposed 3Rs Facility
Wealden Works

Viewpoint 13: View north-northeast from layby on the A24

Distance to site: 1.3km
OS reference: 516770, 132982
Direction to site: north-northeast
Viewpoint height: 51m AOD
Horizontal field of view: Approx. 75°
Viewing distance: 310mm @ A1

Viewpoint 14: View northeast from Station Road

Distance to site: 650m
OS reference: 516462, 133946
Direction to site: northeast
Viewpoint height: 50m AOD
Horizontal field of view: Approx. 75°
Viewing distance: 310mm @ A1



Appendix 4

Graphic panels and exhibition photos - October 2016

BRITANIACREST
RECYCLING
Tel 01293 820
Introducing
Britaniacrest
Britaniacrest Recycling Ltd is a family business employing over 95 staff within the local area and was formed in 1993 by Ray Foss. The family has over 40 years of experience in waste recovery, recycling and haulage, providing an affordable and professional skip hire and waste management service to local customers.
By utilising the then relatively new concepts of recycling, from the outset, Britaniacrest Recycling has grown from strength to strength to become one of the south's leading private waste management companies.
BRITANIACREST
RECYCLING
Recycling and recovering for a more sustainable future

Site
History

The site has a long industrial history dating back to medieval times and is situated on the site of the former Wealden Brickworks off Langhurstwood Road. Bricks are still manufactured on the adjacent site and it sits alongside the mechanical/biological waste treatment plant operated by Biffa, with the Brookhurst Wood landfill site about 900m away. Since 2015 the site has been handling waste materials from local businesses and the district council for processing. The site currently has planning approval to handle 230,000 tonnes a year of industrial and commercial waste.

A better solution

To enable the development of this site to achieve a more workable and viable facility, a new planning application will be submitted this Winter 2016 to West Sussex County Council.

BRITANIAGREST
RECYCLING

Recycling and recovering for a more sustainable future

New
Proposals

The application is for a Recycling, Recovery and Renewable Energy Facility (3Rs). This facility will take commercial and industrial waste or similar waste types and sort and segregate the materials such as metals, plastics and rubble and recover their value using the latest sorting technology. The residual materials will be used to produce energy using well established and proven thermal treatment technology. Electricity will be exported to the national grid enough to power a small town.

These activities will provide a sustainable alternative to landfill disposal, avoid the use of fossil fuels and save primary materials.

BRITANIAGREST
RECYCLING

Recycling and recovering for a more sustainable future

Key
Benefits

- Construction jobs with a peak of circa 300
- Up to 30 additional permanent jobs
- Architectural design in keeping with the location
- Inclusion of facilities to enable visitors to the site
- Opportunities for education and training
- Additional environmental features such as rainwater harvesting
- Inward capital investment regenerating this historic industrial site
- The potential for local heat and power users.

To find out more ask a member of staff or express an interest at

http://www.britaniacrestrecycling.co.uk/wealden-works-dp

BRITANIACREST RECYCLING

Recycling and recovering for a more sustainable future

Key Points

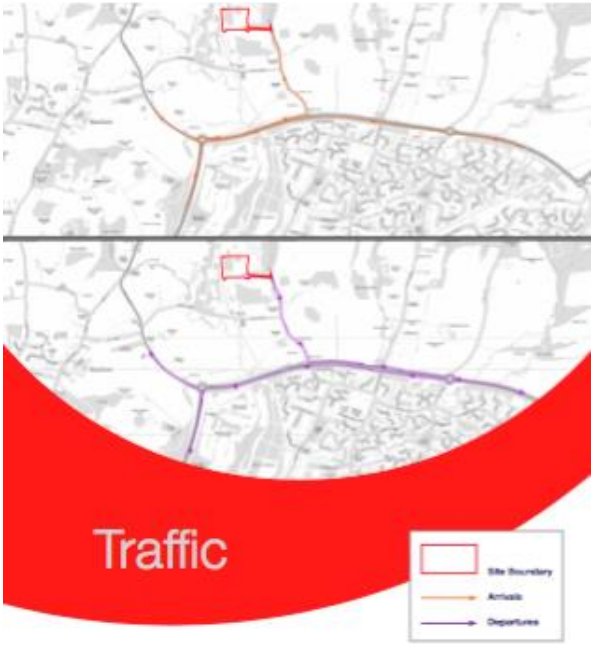
- Capacity for waste treatment on the site unchanged
- Around 180,000 tonnes per year being used to generate energy rather than going to landfill
- Diversion from landfill of circa 90%
- Recovery of materials for recycling
- Generation of around 21 Megawatts of electricity, enough to provide heat, light and power for more than 42,000 homes
- Site staff circa 35 permanent positions

Construction facts

- Industrial construction project of circa 3 years
- Building envelope with offices, internal plant with extensive concrete structures, steel frame and walkways, containing mechanical machinery
- A peak of circa 300 construction site staff, skills: administration, construction, instrumentation, mechanical, electrical and civil engineering.

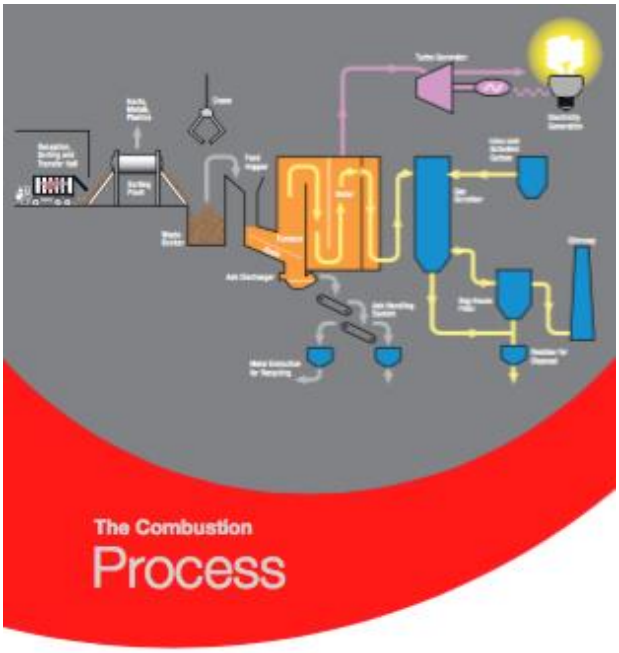
BRITANIACREST RECYCLING

Recycling and recovering for a more sustainable future



The **3Rs Facility** will operate 24/7, but waste deliveries will be restricted to the period 0700 – 1800 hours Monday to Saturday and 0800 – 1700 hours on Sundays and Bank Holidays.

The site already has planning permission for 123 vehicles per day, and the new planning application will not seek to change this. The proposed operational facility **will not generate any additional HGV traffic** at any time during the day – and indeed, may even reduce it, because much less material needs to be removed from the site than enters it.



The Combustion Process

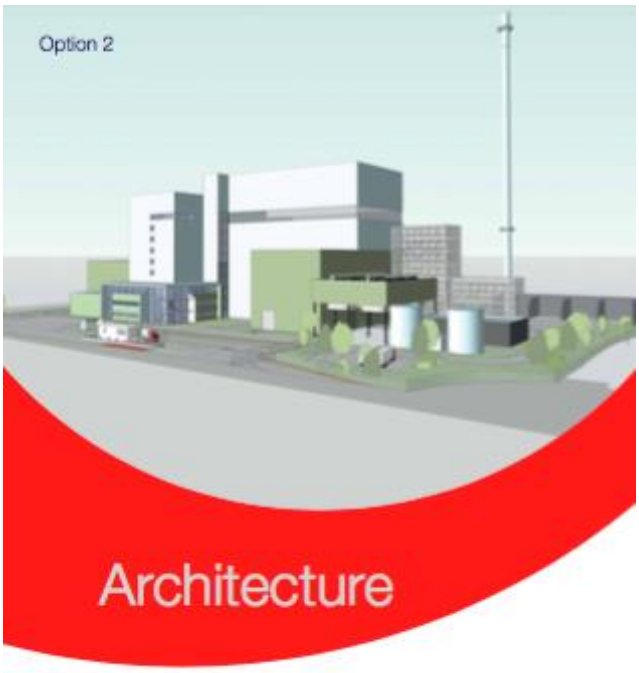
After the sorting and materials recovery process the remaining waste will be deposited in a bunker. A crane will grab the waste and place it into a feed hopper where it will pass down into the combustion chamber. The action of the grate will turn the waste to allow it to burn fully. The resulting ash will then have metals extracted for recycling before itself being recycled for use as an aggregate substitute - principally in road construction.

Hot gases produced in the combustion process will pass through a water-tube boiler, where they will be cooled. The heated water then becomes steam. A turbo-generator will use the steam to produce electricity and potentially heat for export from the site.

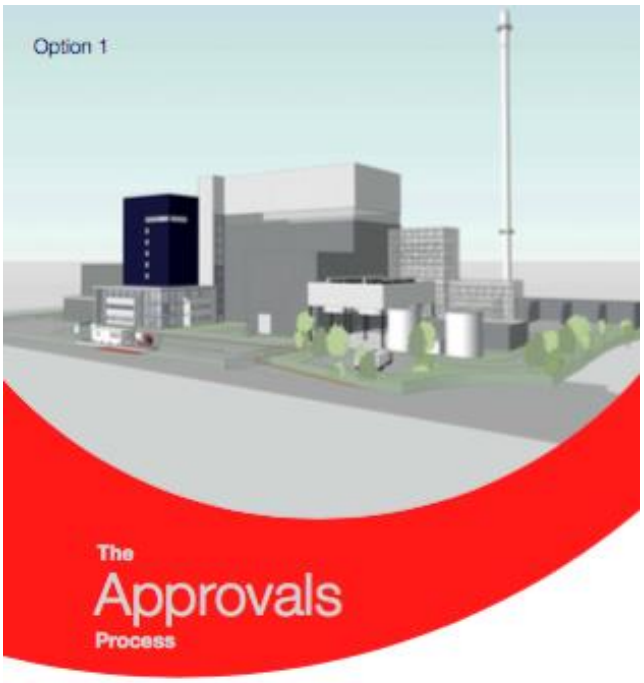
The gases from the boiler will then be cleaned to meet stringent environmental regulations by passing through a gas scrubber, where lime milk is injected to neutralise acid gases, activated carbon is added to remove other pollutants and then a filter to remove particulates and dusts. A small amount of residue (around 3% by weight) will be collected from this cleaning process, and exported from site in sealed containers to a suitably licensed disposal facility. The remaining cleaned gases will be finally released to atmosphere through the chimney.

BRITANIACREST RECYCLING

Recycling and recovering for a more sustainable future



The aim of the building design is to complement the surrounding landscape setting and to reflect the site's industrial heritage, blending its working history with a more high tech modern feel, with clean modern lines enhancing the visual impact of the site. A sympathetic colour pallet will be used to select the finish of the building to blend it into its local environment. The layout of the site has been carefully considered to give a compact solution whilst maintaining full functionality.



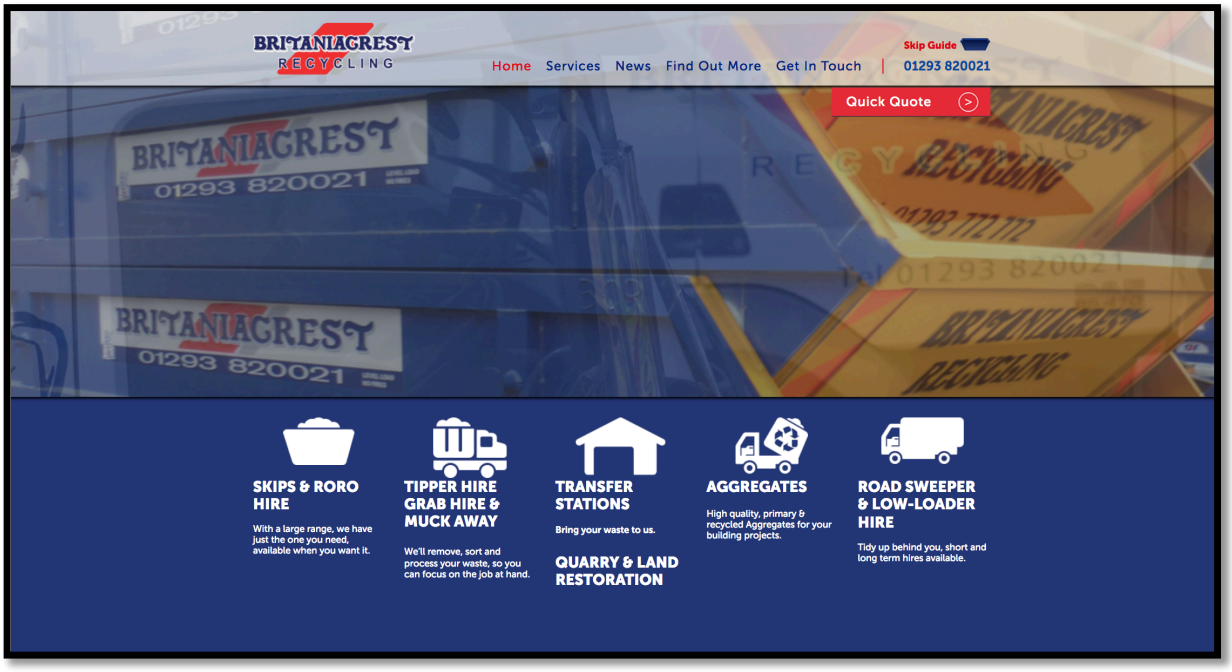
As part of the planning application, various specialist studies have been undertaken by qualified experts to ensure the proposals are robust, appropriate and do not cause harm, or undue nuisance to neighbours - be they business, residential or wildlife - during construction and in operation. These include: **archaeology, ecology, air quality, emissions, noise, odour and traffic.**

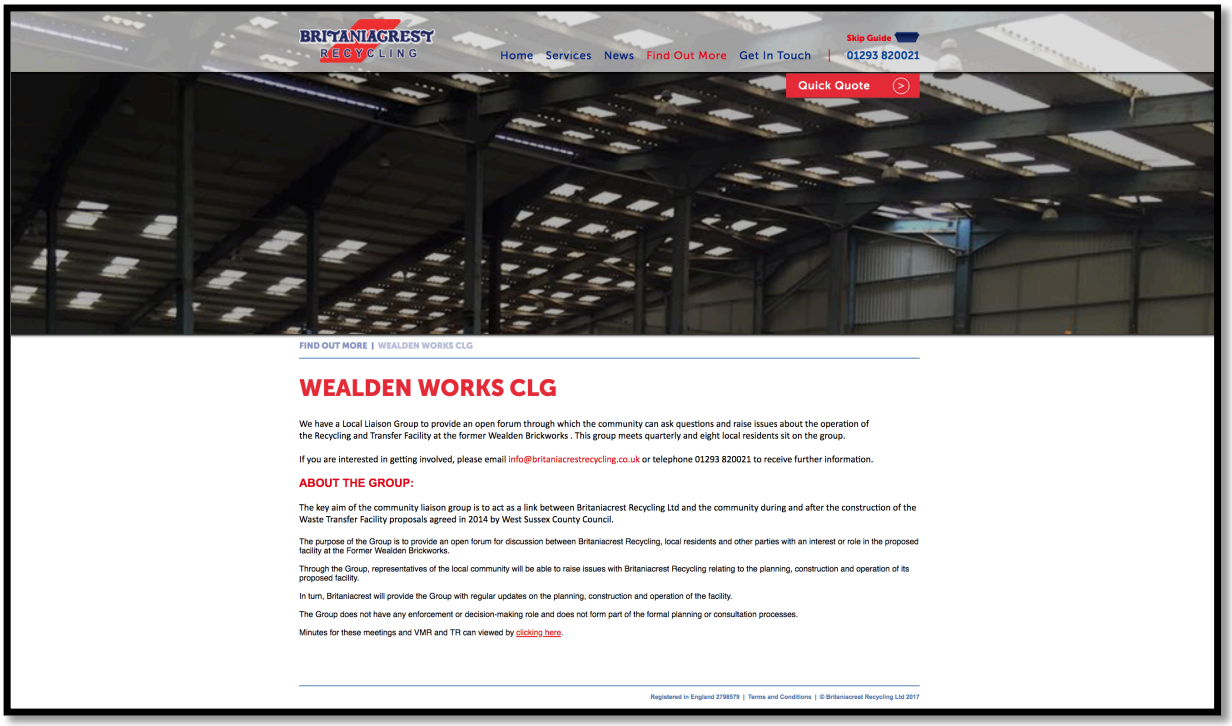
Before the facility can become operational, in addition to the planning permission from the County planning authority, an environmental permit will need to be obtained from the Environment Agency and building control approval given by Horsham District Council.

Photos of the exhibition

Appendix 5

Website pages





FIND OUT MORE WEALDEN WORKS DEVELOPMENT PROPOSAL

WEALDEN WORKS Development Proposal

Information on the new application proposals are detailed below:

Please click here for a printable copy

or click on the pages below to enlarge....

Britania Bulletin

For further details on the proposals please click here to see the display boards shown at the Public Exhibition in January 2018.

Links to further information:

Planning Press Release - July 2017

Further Information Requested by WSCC (Regulation 22) June 2017

Planning Application - December 2016

Planning Press Release - December 2016

BCR Planning Exhibition 7th and 8th October 2016 - Panels

Britaniacrest Bulletin - Issue 1 1st October 2016

Press Advert for Exhibition 30th September 2016

Please email us if you want to be on our mailing list to receive information regarding the site proposals. Email address: info@britaniacrestrecycling.co.uk

Appendix 6

Advertisements – 2018

BRITANIACREST RECYCLING

Public Exhibition:

Britaniacrest Recycling Ltd will be submitting a planning application early this year to develop a Recycling Recovery and Renewable Energy Facility (The 3Rs) at the site of the former Wealden Brickworks, off Langhurstwood Road, RH12 4QD.

Whilst there has been substantial investment in waste processing facilities across the country, there is a real shortage of facilities that can deal with the diverse mix of waste, ensure that appropriate waste is recycled and that the remainder is put to use to the benefit of the UK.

This facility will safely process waste and materials, such as metals, particular plastics and rubble, which will be sorted and segregated to recover their value for onward recycling using the latest sorting technology. The residual material will be used to produce energy using well established and proven thermal treatment technology. Electricity will be exported to the grid, enough to power a small town. All these activities will provide a sustainable alternative to primary materials and fossil fuels.

Britaniacrest Recycling will be holding a public exhibition for local people to find out more and express their views on the plans proposed for the site. The exhibition will be held at Roffey Millennium Hall, Crawley Road, Horsham, West Sussex, RH12 4DT on:

Friday 26th January from 4pm – 7pm
Saturday 27th January from 10am – 1pm

Staff will be on hand at all times to welcome residents and answer any questions.

To find out more, express an interest or request further information please visit our website at http://www.britaniacrestrecycling.co.uk/wealden-works-dp Alternatively, please contact us on 01293 820021.

Recycling and recovering for a more sustainable future

BRITANIACREST RECYCLING

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Recycling and recovering for a more sustainable future

Appendix 7

Advertisements – 2016

BRITANIACREST
RECYCLING

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Wealden Brickworks, off Langhurstwood Road, RH12 4QD.

Whilst there has been substantial investment in waste processing facilities across the country, few are available to businesses to ensure that their waste is properly treated to avoid landfill. There is a real shortage of such facilities, especially as there is over twice as much business waste as household waste.
This facility will safely process waste and materials, such as metals, plastics and rubble, which will be sorted and segregated to recover their value for onward recycling using the latest sorting technology. The residual material will be used to produce energy using well established and proven thermal treatment technology. Electricity will be exported to the grid, enough to power over 56,000 homes. All these activities will provide a sustainable alternative to primary materials and fossil fuels.
Britaniacrest Recycling will be holding a public exhibition for local people to find out more and express their views on the plans proposed for the site.
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Recycling and recovering for a more sustainable future

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Alternatively, please contact us on 01293 820021.

Recycling and recovering for a more sustainable future

APPENDIX B

Pre-Application Advice Letter, WSCC, December 2015

Michael Elkington
Strategic Planning Manager

Please respond to Jane Moseley
Tel: 0330 2226 948
email: jane.moseley@westsussex.gov.uk

www.westsussex.gov.uk

County Planning

County Hall
Chichester
West Sussex
PO19 1RH

Tel: 01243 756 867

Jenka Kaslik
RPS Group Limited
2420 the Quadrant
Aztec West
Almondsbury
Bristol BS32 4AQ

20 December 2015

By email only to jkaslik@rpsgroup.com

Dear Jenka

Pre-Application Planning Advice: Proposed Energy from Waste Facility at Wealden Brickworks, Langhurstwood Road RH12 4QD

I write following our meeting on 1 December 2015 regarding the above.

The following provides planning advice on the project based on the information discussed and presented at that meeting, and set out in the written details provided in the Scoping Request received on 10 November 2015.

Background and Understanding of Project

My understanding of the project is that your clients, Britaniacrest, wish to redevelop the former Wealden Brickworks site to provide a facility to sort, separate and treat up to 200,000 tonnes per annum of waste from commercial/industrial and/or municipal sources. This throughput is higher than the tonnage set out in the Scoping Report (180,000 tonnes/annum), reflecting our pre-application discussions. This amount includes that already permitted under the 2014 permission (ref. WSCC/018/14/NH).

It is proposed that material would be delivered to a reception building for the separation and bulking of recyclable material for onward transport. The residual material would be shredded before being transferred for thermal treatment.

The type of technology to be used has yet to be defined, but it would include the recovery of energy, making use of an existing substation on the Brookhurst Wood site. It is anticipated that existing buildings on the site would be demolished and replaced with a new, purpose-built facility.

Access areas within the site would be impermeably surfaced, and the thermal treatment area of the building would be fully enclosed. A stack, of a height yet to be defined (but assumed in the Scoping Report to be up to 90m in height) would be installed to achieve the required air dispersal.

Planning Advice

To avoid repetition the following advice should be read alongside the specific advice regarding EIA matters provided in the Scoping Opinion, issued by the County Council on 15 December 2015.

The key issues to be considered in relation to any application on this site are set out in the 'development principles' for the site (paragraph 7.3.15 of the West Sussex Waste Local Plan). Your submission should ensure that each of the principles is addressed.

As discussed at the meeting, it would be useful if the new application covered the whole site, even if the existing use or approved use (i.e. with increased throughput) is to continue. This would ensure that the scope of the development is clear to your clients, to the County Council in determining the application, and to consultees and third parties in considering it.

As mentioned, we would encourage the use of a Planning Performance Agreement covering the application to agree key milestones, responsibilities and timescales, with the County Council allotting resources to them.

As noted in the meeting, we are anticipating the submission of an application to extend the life of the Brookhurst Wood landfill, adjacent to the site so you should ensure you consider any implications that may have for your development.

Local Validation List

In considering the information to submit with the application, regard should be had to the West Sussex Local List 2015. The following considers the Local Validation Requirements set out in Table 2, with the exception of those topics already addressed in our Scoping Response (i.e. the need for an air quality assessment, archaeological assessment, alternative sites assessment (not required for allocated sites), archaeological assessment, dust assessment, ecological appraisal, flood risk assessment, foul/surface water drainage assessment, heritage assessment, hydrological/hydrogeological assessment, land contamination assessment, landscape and visual impact assessment, noise assessment, and tree survey):

1. *Drawings/Plans/Sections*:
   Full details of the site layout and building design, including elevations, should be provided. The site boundary should include a link to the public highway.

   The size and location of existing buildings on the site should be indicated on a plan so that the relative scale and positioning of the new building is clear. The proposed site layout should include reference to how each part of the site, particularly external areas, would be used. If external storage is proposed, the type of material to be stored and the height of storage should be identified. Any proposed boundary treatment (including fences, landscaping and existing/ proposed bunds) and lighting should be indicated.

   If works are required to connect the site to the grid, these should be identified on the drawings submitted, and reference made in the Planning Statement to whether these are included as part of the development to which the application relates, or whether they would be 'permitted development'.

2. *Design & Access Statement*:
   The proposal relates to a waste development so a Design & Access Statement will not be required. However, details of the evolution of the building's design and why the final form has been selected should be included in the Planning Statement.

3. *Aerodrome Safeguarding Statement*:
   A Statement should be included in relation to aerodrome safeguarding, though this can form part of the Planning Statement. Please see the response from London Gatwick Limited to the Scoping Request to ensure that their concerns are addressed.
   Once you have details of the stack height, as per the letter from Gatwick Airport Limited a 'Pre-Planning Assessment' should be considered to ensure that impacts on radar and other navigational devices are avoided.

4. *Lighting Assessment*:
   Details of lighting should be included in the application, either as part of the ES or in a separate assessment. These details will be important in relation to the railway corridor, and airport, and to establish visual impacts if site operations would be continuous, unlike adjacent sites which cease overnight.

5. *Need Statement*:
   There is no requirement to demonstrate a quantitative or market need for development on an allocated site such as this (paragraphs 6.2.8 and 7.3.5 of the Waste Local Plan) so a Need Statement is not required. However, the likely source of waste (within or beyond the County) should be clarified, along with how it would be transported to the site (bulked in articulated lorries; in skip lorries etc.).

6. *Planning Obligation Heads of Terms*:
   I do not anticipate a S106 would be required at this stage but if it emerges that this is the case, it would be useful to agree the heads of terms at an early stage.

7. *Planning Statement*:
   As set out in the Scoping Opinion, this should include reference to the planning policy context (if you wish), and socio-economic impacts.

   It should also set out what engagement has taken place with the community and other affected parties, and any changes made to the development as a result.

   Given the scale of the building likely to be required, particularly the stack, the Planning Statement should clarify how the design has come about – the design principles underpinning the final form and details.

8. *Stage 1 Road Safety Audit*:
   The need for a Road Safety Audit should be agreed with WSCC Highways (details below) once more details of the development have been established.

9. *Transport Assessment/Statement*:
   The need for a Transport Assessment or Statement should be agreed with WSCC Highways once the details of the development have been finalised. I suggest that you seek formal pre-application advice from WSCC Highways or call their team on 0330 2224 777 or email planninghighways@westsussex.gov.uk to discuss.

I hope this is clear but should anything require clarification please do not hesitate to contact me on the telephone number at the top of this letter.

The advice above is based on the information available at the time, and is given without prejudice to the formal planning process which may result in a different view being taken. None of the information should be taken to imply that planning permission will be granted.

Yours sincerely

Jane Moseley
County Planning Manager

APPENDIX C

Aerodrome Safeguarding Statement

Wealden Works 3Rs Facility

Statement on Aerodrome Safeguarding

.1 Introduction

.1.1 This document is the Statement on Aerodrome Safeguarding, which has been prepared to accompany the planning application for the proposed Resource Recovery and Renewable Energy Facility at Langhurstwood Road, Horsham, West Sussex.

.1.2 This Statement has been compiled out by Vismundi Limited on behalf of Britaniacrest Recycling Ltd.

.1.3 The purpose of this Statement is to describe the enquiries made to Gatwick Airport Limited Safeguarding (GAL Safeguarding) regarding the potential effects of the proposed development on the airport operations and to describe any mitigation schemes to be deployed to avoid or ameliorate these effects.

.2 Enquiry to GAL Safeguarding

.2.1 An initial enquiry was submitted to GAL Safeguarding by email on 11 September 2016 describing briefly the development and the location of the site. A copy of the correspondence is provided in Appendix 1.

.2.2 An interchange of correspondence took place, and a schematic of the 3Rs Facility building, giving height information was provided to GAL Safeguarding on 27th September 2016. This correspondence is presented in Appendix 2. It should be noted that the height stated was greater than that in the planning application following a design review wherein the building height was lowered.

.3 Response from GAL Safeguarding

.3.1 Following consultation with National Air Traffic Services (NATS) and the Civil Aviation Authority (CAA), a final response was received from GAL Safeguarding on 7th October 2016. The response is presented in Appendix 3.

.3.2 In their response, GAL Safeguarding confirmed the building and stack height concerned of 56.9m and 95m respectively above ground level, and confirmed that:

- at 143.5m AOD maximum the site was under the Outer Horizontal Surface of 204.35m AOD, and there would be no infringement of the safeguarding;
- there will be no impact on radar or navigational aids;

.3.3 GAL Safeguarding did, however, recommend that medium intensity red obstacle lights be fitted 1.5m below the top of the stack, and that care be taken in the waste management procedures and the design of the building not to attract birds. They also requested sight of the emissions from the stack (assumed to be referring to the air quality modelling calculations) and to be informed one month before any cranes are brought onto site. The applicant has agreed to comply with these requests.

.3.4 GAL Safeguarding will in any event receive a copy of the application as a statutory consultee.

Appendix 1

Initial Enquiry

Keith <keithriley@vismundi.com>
To: gal.safeguarding@gatwickairport.com Cc: Chris Foss <cfoss@britaniacrestrecycling.co.uk>
Britaniacrest Recycling - Wealden Brickworks 3Rs facility

Dear Sir or Madam

I write on behalf of Britaniacrest Recycling Ltd who are proposing to submit a planning application to West Sussex County Council to construct a waste recycling, recovery and renewable energy (3Rs) facility at the old Wealden Brickworks, Brookhurst Wood, off Langhurstwood Road, Horsham, West Sussex RH12 4QD (nearest). The purpose of this email is to consult with the Gatwick Airport Safeguarding Team to ensure that will be no objection to the development of the Facility from the point of view of the Airport's safety and security (radar etc).

The site is designated in the West Sussex Waste Local Plan (April 2014) and is considered to be a suitable site for such a facility. I attach an extract from the Waste Local Plan indicating the allocated site. The nature of the facility will be akin to a power station that uses residual waste as the fuel to generate power and will involve a main building of height 54m AOD and a chimney stack, the exact height of which is still to be determined, but which could be up to 95m high. The location is as follows:

Grid Reference : TQ171342
X Easting: 517165 Y Northing: 134285
Latitude: 51.095909 Longitude: -0.32817900

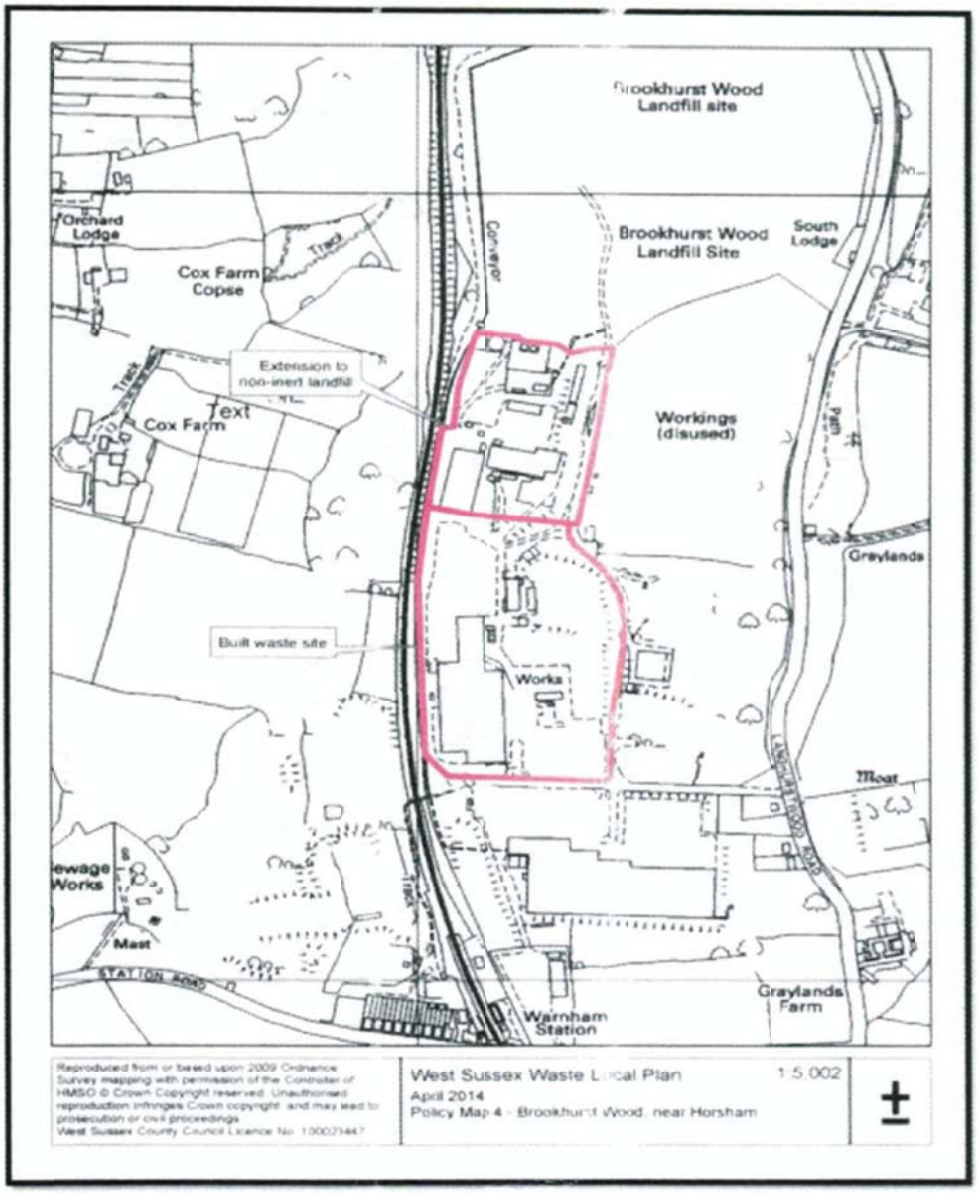
I should be grateful if you could confirm whether or not you consider the site to fall within the safeguarding area and if so, what further information you will require in order to establish if the development has any impact on the airport operations.

I look forward to hearing from you.

Yours faithfully

Keith Riley
Vismundi Limited
The Folly
Godstone Road
Lingfield
Surrey
RH7 6BT

Tel: 07979 497703
Vismundi


Brookhurst Wood Landfill site
Orchard Lodge
Cox Farm Copse
Brookhurst Wood Landfill Site
South Lodge
Extension to non-inert landfill
Text
Cox Farm
Workings (disused)
Graylands
Built waste site
Works
Moat
Sewage Works
Mast
STATION ROAD
Warnham Station
Graylands Farm
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West Sussex Waste Local Plan
April 2014
Policy Map 4 - Brookhurst Wood, near Horsham
1:5,002

Appendix 2

Building Height Confirmation

Amanda Purdye <amanda.purdye@gatwickairport.com>
To: Keith <keithriley@vismundi.com>
28 September 2016 at 16:22
Warnlam
RE: Proposed Recycling Plant at Former Wealden Brickworks Site – LOW3297

Hi Keith
Thank you for your email, no problem at all re the heights. I note that the chimney is 95m AGL (143.5m AOD).

I will refer the plans to ANS (our ATC provider), NATS (who safeguard the secondary surveillance radar) and CAA to enable the to assess as to whether the proposals will have any potential issues for Instrument Flight Procedures (IFP's).

I will come back to you as soon as possible.

Best Regards Mandy

Amanda Purdye
Aerodrome Safeguarding Officer
Email: gal.safeguarding@gatwickairport.com

www.gatwickairport.com

YOUR LONDON AIRPORT

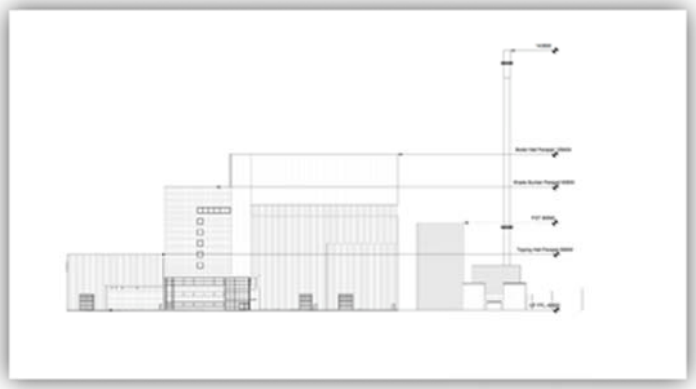
From: Keith [mailto:keithriley@vismundi.com]
Sent: 27 September 2016 20:57
To: Amanda Purdye
Subject: Re: Proposed Recycling Plant at Former Wealden Brickworks Site – LOW3297

Dear Amanda

My apologies for the confusion over levels. I now attach a schematic of the proposed development spot heights showing heights of a few elements of the building and the stack from the AOD level. The Ground Floor level (GF FFL is at 48.5m AOD.

I hope this provides you with the information you require and sorry for the confusion.

Best regards
Keith



Appendix 3

GAL Safeguarding Response

YOUR LONDON AIRPORT Gatwick

07 OCTOBER 2016

Keith Riley
Vismundi Limited
The Folly
Godstone Road
Lingfield
Surrey RH7 6BT

Dear Keith

Re: Proposed waste recycling, recovery and renewable energy facility at Old Wealden Brickworks, Brookhurst Wood, off Langhurstwood Road, Horsham, West Sussex
Our Ref: LGW3297

Further to the above mentioned proposals and your email dated 29 September 2016. The site is around 11.2km South West of the Aerodrome Reference Point (ARP) at Gatwick Airport and our advice is as follows:

Development Heights
The elevational plan attached to your email dated 29 September 2016 shows the proposed development heights are as follows:

- **Stack** – This will be 143.500m Above Ordnance Datum (AOD), 95m Above Ground Level (AGL).
- **Boiler Hall Parapet** – This will be 105.440m AOD (56.9m AGL).

The site is under the Outer Horizontal Surface (OHS) which is a flat surface and is located at 204.35m AOD. As the maximum height of the development will be at 143.500m AOD, there will be no infringement.

I have assessed the development on the above mentioned heights, if there is to be any increase in height, please contact me again for further assessments.

Radar/Navigational Aids Assessment
Given the proposed heights as stated above there will be no impact with regard to radar or navigational aids, however should there be any changes to the heights please contact me as soon as possible as further assessments will need to be undertaken.

YOUR LONDON AIRPORT Gatwick

Obstacle Lighting
As the proposed stack will be 95m above ground level we would recommend that medium intensity red steady obstacle lights should be used to ensure that the stack is clearly visible to helicopters and other aviation traffic at all times.

The obstacle lights should be placed around 1.5m below the top of the stack in order to reduce the effects of discolouration or corrosion from any emissions.

We would also recommend that medium intensity red steady obstacle lights should be placed on the corners of the boiler hall as it is 56.9m above ground level.

Wildlife Hazard Management
Aircraft are vulnerable to bird strikes and it is essential that any proposed development does not increase the birdstrike risk to the airport. The following must be taken into account:

- **Putrescible Waste**
  The handling of any putrescible waste must be must be given careful consideration to ensure that it is not accessible to birds. Any putrescible waste, including garden waste, must be processed under cover and not stored in the open.

  We may request that a Bird Hazard Management Plan be entered into to ensure that birds are not attracted to the site.

- **Building Design**
  The design of buildings and structures must be carefully considered to ensure that birds are not attracted. Ledges, gantries and other complex structures offer potential nesting, roosting and loafing opportunities. Pigeons, Gulls and Starlings are the most common birds hazardous to aviation to be found in and around buildings.

  Ideally there should not be any large areas of flat or shallow pitched roofs (with a pitch of less than 15 degrees) as these are very attractive to gulls in particular, for nesting, roosting and loafing. However if these types of roof are unavoidable we would request a Bird Hazard Management Plan be entered into to ensure that birds do not become habituated to the site.

- **Sustainable Urban Drainage & Water Features**
  Areas of open water, depending on their size and location have the potential to attract birds hazardous to aviation. Therefore we would wish to see any

YOUR LONDON AIRPORT Gatwick

open water kept to a minimum and designed in such a way so as not to attract hazardous birds.

For further general advice please see Airport Operators Association (AOA) Advice Note 3 'Wildlife Hazards Around Aerodromes' attached.

Renewable Energy
Certain types of renewable energy have the potential to impact on airport operations. Wind turbines can adversely affect radar and other navigational aids and large areas of solar panels have the potential to cause glint and glare to pilots.

If any wind turbines or large areas of solar panels are proposed we would ask that you contact us as soon as possible to enable us to carry out further assessments.

For further general information please see AOA Advice Note 5 'Renewable Energy & Impact on Aviation'.

Emissions
We would request that when available we have sight of details of any emissions from the stack to ensure that there will be no impact on either aircraft or navigational aids.

For further general information please see AOA Advice Note 5 'Renewable Energy & Impact on Aviation'.

Cranes
A crane permit may be required for these works as cranes have the potential to impact on instrument flight procedures, radar and other navigational aids.

We would ask that at least one month before a crane is due on site that you contact us at gal.safeguarding@gatwickairport.com and we will be able to advise.

Please be advised that the advice given is informal and without prejudice to the consideration of any planning application which may be referred to us pursuant to Planning Circular 01/2003 in consultation under the safeguarding procedure. It cannot be assumed that any response to consultation under Planning Circular 01/2003 will necessarily coincide with the informal advice now given. We will not have any liability to you or third parties who may follow this advice.

It should also be made clear that provision of this advice does not constitute support for the development nor an opinion that the development is acceptable under local planning policy. If you have any queries please do not hesitate to contact me.

YOUR LONDON AIRPORT Gatwick

Yours sincerely

Amanda Purdye, Aerodrome Safeguarding
For and on behalf of Gatwick Airport Limited

Email: gal.safeguarding@gatwickairport.com

APPENDIX D

Detailed Operational Process

Appendix D Detailed Operational Process

Waste Acceptance and Handling

1. Acceptable waste would arrive at the facility and be delivered to the reception hall and materials pre-treatment area for sorting and recovery of the fractions that can be recovered and recycled. These would be inert materials, wood, selected plastics, ferrous metals and non-ferrous metals.
2. Acceptable waste would be delivered to the facility in covered vehicles or containers. A vehicle entering the site would be received at the weighbridge, where it would be checked to ensure that it holds a Waste Carriers Licence and that the (electronic) Transfer Note is in order. It would then be weighed to Trading Standards requirements, following which it would be allowed to proceed to the reception hall under the control of a traffic light system to maintain safety of the operation. The traffic light system would direct the vehicle into the enclosed hall where it would be directed to a designated unloading bay and its load discharged into the waste processing hall. Loads that are not carrying recyclable material may unload directly into the bunker.
3. Waste deliveries would only be accepted from authorised carriers and all heavy goods vehicles entering the site would report to the weighbridge gatehouse before being allowed to enter the site. Details of all waste entering the facility would be recorded in a tracking system. In addition, frequent inspections of waste would be undertaken in the reception hall and any non-compliant waste would be quarantined in a contained service area where it would remain until alternative disposal arrangements are in place.
4. Having been processed by the mechanical pre-treatment plant in the waste processing hall, the feedstock would be deposited in the bunker. Within the bunker, the feedstock would be mixed using a crane grab to create a homogenous waste profile. Mixing would be part of the bunker management to achieve, as far as possible, uniformity in the waste calorific value to aid the combustion process. The waste bunker would have sufficient capacity to store up to three days of feedstock in order to take into account potential interruptions in waste deliveries.
5. In order to limit environmental nuisances such as vermin, dust, litter and odour all deliveries, handling and storage would be undertaken in a fully closed environment. Access to and from the reception hall and bunker for waste delivery would be via an entrance fitted with a fast acting door which would remain closed during non-delivery periods.
6. Periodic washing would also be carried out to maintain a clean tipping area.
7. The reception area and handling equipment would also be designed to allow the facility to operate as a Waste Transfer Station in the event of extended maintenance periods or shutdowns. This would be achieved by enabling the bunker waste to be back-loaded into articulated vehicles.

Waste Processing and Feedstock Preparation

8. Acceptable waste would be loaded from the storage area in the waste processing hall into a receiving hopper in the waste processing hall by crane for subsequent processing by the mechanical pre-treatment equipment. The following typical process would then take place:
    - The waste would be fed from the receiving hopper into a coarse shredder;
    - The shredded material would be passed through a trommel or screen to remove fines;
    - The oversize material would pass under over-band magnets to recover ferrous metals and an eddy-current separator to remove non-ferrous metals;
    - An air separator would segregate heavy and light fractions;
    - Near-infrared detection and sorting units would remove PVC and other plastics as required; and
    - The material would then pass through a secondary shredder with capability to reduce the particle size down to a minimum of 75 mm.
9. The residual waste, known as feedstock, would then be moved to the bunker awaiting thermal treatment.

Thermal Treatment

10. The feedstock would be lifted by crane grab from the bunker into a feed hopper and fed onto a moving grate. The furnace in which the grate is located would be at a temperature in excess of 850 ºC. Air would be fed through the grate from the underside to maintain the combustion process. The grate would be inclined and the grate-bars would move relative to one another. The movement of the grate would cause the feedstock to tumble slowly down the grate, exposing the feedstock to the air and ensuring almost complete burnout of the carbon in the feedstock. The process would be continuous.

11. Ash (known as Incinerator Bottom Ash or IBA) would fall through the grate and would contain less than 3% carbon. The ash would be recovered through a water bath (for cooling) and removed to a storage area. The ash would then be moved off-site for conversion into an aggregate substitute and recycled.

12. The hot gases (known as flue gas) from the combustion of the feedstock would pass through a water-tube boiler. The water in the boiler tubes would turn to steam and the steam would be superheated to approximately 430 ºC at a pressure of between 60 – 72 bar (depending on the final design). The superheated steam would then be passed into a steam turbine that expands the steam, causing it to rotate and drive an electrical generator. Tappings would be included in the turbine casing to allow steam extraction in the event a distributed energy network is fitted. Initially, however, these tappings would be blanked off.

Electricity Generation and Parasitic Load

13. The superheated steam would pass through the turbine and pass under vacuum to an air-cooled condenser (ACC). The ACC would comprise fans blowing air across a radiator-like tube surface with the low pressure steam passing into the tubes. The cooling of the air would condense the steam back to water, following which it would flow to the feedwater tank and be pumped around the boiler circuit again. There would be no discharge of process water into local watercourses.

14. The turbine-generator would produce approximately 21 MW of electricity. A proportion of this electricity generated would be used by the facility itself to power the on-site consumers, such as electric motors, fans, lighting, HVAC etc. This is known as the parasitic load.

15. The efficiency of the facility determines the remaining energy available for export. It is not possible at this stage to state what the exact efficiency would be, but it would be more than sufficient to meet the energy efficiency requirement for a recovery facility of 0.65 set out in the Waste Framework Directive (2008/98/EC). In consequence the facility would qualify as “recovery” under Article 3 of the Directive.

16. The operator would be required by the Environment Agency under the permitting process to minimise the electricity required to operate the facility so as to optimise the amount of energy that is available for export outside of the operation of the plant itself.

Flue Gas Treatment

17. The flue gas produced by the combustion process would contain mostly carbon dioxide and water, but would produce some nitrogen oxide (NO_x) and trace quantities of pollutants, depending on the composition of the feedstock being combusted.

18. NOx is a naturally occurring product of any combustion process. The means of treating it would have to be approved by the Environment Agency, but it is anticipated that selective non-catalytic reduction would be used. This would be achieved by the injection of ammonia or urea into the raw gas stream. In the case of urea, it would convert to ammonia and in both cases the ammonia would react with the flue gas stream at a location where the temperature is around 850-900 ºC.

19. Lime and powdered activated carbon would be injected into the gas stream in the flue gas treatment system, which would be deposited on the filters in the downstream bag filter system. The lime would neutralise any acid gases in the flue gas and the powdered activated carbon would attach to organic compounds (including dioxins) and be removed by the filters. The use

of dry lime would enable greater energy efficiency to be achieved and reduces the incidence of plumes at the stack exit.

20. A baghouse filter would be included as the last process prior to the stack. The baghouse filter would consist of hundreds of individual filter bags and would capture particulate in the gas stream, including dust, lime powder and powdered activated carbon. The filters would be vibrated periodically by "rappers", causing the dust to fall off and be captured and placed in a silo. This material is known as air pollution control residue, and is categorised as hazardous due to its alkalinity, but represents only about 3% by weight of the original raw waste input. The air pollution control residue would be emptied from the storage silo by vacuum tanker and removed off-site for further processing. Processes are available that allows the air pollution control residue to be recycled.

Flue Stack

21. The facility would have a single flue stack with a proposed height of 95 metres located to the east of the main buildings. The height has been determined through computer dispersion modelling of emissions and evaluation of the resulting dispersion plumes so that ground level concentrations of key pollutants are kept well within acceptable levels under all operating conditions (See ES Appendix 7.2).

22. Dispersion of pollutants is dependent on a number of factors including local land topography, emission rates and pollutant concentrations and the height of the facility buildings. The air quality and plume dispersion modelling used to identify the stack height necessary for optimum dispersion is described in detail in ES Chapter 7: Air Quality and Odour.

23. The stack has been designed to meet all predicted climatic conditions. A separate windshield has been avoided, thereby minimising visual impact. Continuous emissions monitoring would be included in the stack with 100% redundancy so that in the event of a breakdown the standby equipment would continue to monitor the emissions. The sampling would be brought down to a low level, hence avoiding the necessity for galleries around the stack at height and enabling it to have a smooth profile. The outer surfaces of the stack would be grey-coloured and non-reflective, further minimising visual effects.

24. The applicant had previously undertaken consultation with the Aerodrome Safeguarding representatives for Gatwick Airport. This consultation confirmed that, as the building and stack height proposed are under the Outer Horizontal Surface (OHS) which lies at 204.35m AOD, there will be no infringement of this surface and no impact with regard to radar or navigational aids. The reduced height building will increase the distance of the building below the OHS. It was, however previously recommended that medium intensity red steady obstacle lights be placed around 1.5m from the top of the stack to ensure that the stack is clearly visible to helicopters and other aviation traffic at all times. The recommended obstacle lighting is therefore included within the design.

Residues Management

Incinerator Bottom Ash (IBA)

25. The primary residual material from the combustion process is IBA, which consists of the non-combustible fractions of the feedstock. IBA is continually discharged from the combustion chamber. The volume of IBA generated would be dependent on the composition of the feedstock processed. However, it is estimated that the yearly quantity of IBA generated at the proposed facility would be approximately 40,000 tonnes.

26. IBA from the furnace would be quenched with water prior to transfer to the bottom ash area bunker. This process would involve the use of a drag conveyor to recover the IBA to a water bath before final transfer to the ash bunker. Storage for approximately four days of IBA has been provided. The Environmental Services Association (ESA) protocol for IBA agreed with the Environment Agency would be followed. This would lead to the IBA being categorised as non-hazardous and capable of being recycled into an aggregate substitute.

27. Due to the mechanical pre-treatment plant in the waste processing hall, the incidence of metals in the feedstock would be small. Any metals finding their way into the feedstock, however, may be recovered from the ash during its subsequent processing. It is also possible that a metal separator (over-band rotating magnet), located on the last conveyor before the bottom ash

bunker, would remove ferrous metal and transfer it to a separate compartment of the ash bunker for storage pending off site transport.

28. Transfer of IBA from the bunker to collection trucks would be either by crane and hydraulic grab or by front-end loader. The transfer would take place in an enclosed loading bay in order to limit fugitive emissions. All trucks leaving the facility would be securely covered.

Boiler Ash

29. Boiler ash residues would be removed from the tube surfaces of the boiler by an enclosed conveyor system and transferred to a silo located within the facility. The silo would have the capacity to store approximately ten days of boiler ash residue, and would be transported off site but may be mixed with IBA prior to transport off site, depending on its composition.

Flue Gas Cleaning Residues

30. Flue gas cleaning residues would be removed from the baghouse filter by an enclosed conveyor system and transferred to two dedicated storage silo located within the facility. The storage silos have the capacity to store approximately seven days of flue gas cleaning residues. The residues would be transported off-site either for recycling or to landfill.

APPENDIX E

Waste Types

Appendix E: Waste Types to be accepted

Waste code	Description
02	Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing
02 01	wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing
02 01 03	plant-tissue waste
02 01 04	waste plastics (except packaging)
02 01 10	Waste metal
02 06	wastes from the baking and confectionery industry
02 06 01	materials unsuitable for consumption or processing
03	Wastes from wood processing and the production of panels and furniture, pulp, paper and cardboard
03 01	wastes from wood processing and the production of panels and furniture
03 01 01	waste bark and cork
03 01 05	sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04
03 03	wastes from pulp, paper and cardboard production and processing
03 03 07	mechanically separated rejects from pulping of waste paper and cardboard
03 03 08	wastes from sorting of paper and cardboard destined for recycling
04	Wastes from the leather, fur and textile industries
04 02	wastes from the textile industry
04 02 10	organic matter from natural products (for example grease, wax)
04 02 21	wastes from unprocessed textile fibres
04 02 22	wastes from processed textile fibres
15	Waste packaging, absorbents, wiping cloths, filter materials and protective clothing not otherwise specified
15 01	packaging (including separately collected municipal packaging waste)
15 01 01	paper and cardboard packaging
15 01 03	wooden packaging
15 01 04	metallic packaging
15 01 05	composite packaging
15 01 06	mixed packaging
15 01 09	textile packaging
17	Construction and demolition wastes (including excavated soil from contaminated sites)
17 02	wood, glass and plastic
17 02 01	wood
19	Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use
19 02	wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)
19 02 03	premixed wastes composed only of non-hazardous wastes
19 05	wastes from aerobic treatment of solid wastes
19 05 01	non-composted fraction of municipal and similar wastes
19 05 02	non-composted fraction of animal and vegetable waste
Waste code	**Description**
19 05 03	off-specification compost

19 06	wastes from anaerobic treatment of waste
19 06 04	digestate from anaerobic treatment of municipal waste
19 06 06	digestate from anaerobic treatment of animal and vegetable waste
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 01	paper and cardboard
19 12 07	wood other than that mentioned in 19 12 06
19 12 08	textiles
19 12 10	combustible waste (refuse derived fuel)
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11
20	Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions
20 01	separately collected fractions (except 15 01)
20 01 01	paper and cardboard
20 01 10	clothes
20 01 11	textiles
20 01 38	wood other than that mentioned in 20 01 37
20 01 39	plastics
20 02	garden and park wastes (including cemetery waste)
20 02 01	biodegradable waste
20 03	other municipal wastes
20 03 01	mixed municipal waste
20 03 02	waste from markets
15 01 09	textile packaging
17	Construction and demolition wastes (including excavated soil from contaminated sites)
17 02	wood, glass and plastic
17 02 01	wood
19	Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use
19 02	wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)
19 02 03	premixed wastes composed only of non-hazardous wastes
19 05	wastes from aerobic treatment of solid wastes
19 05 01	non-composted fraction of municipal and similar wastes
19 05 02	non-composted fraction of animal and vegetable waste
19 05 03	off-specification compost
19 06	wastes from anaerobic treatment of waste
19 06 04	digestate from anaerobic treatment of municipal waste
19 06 06	digestate from anaerobic treatment of animal and vegetable waste
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 01	paper and cardboard
19 12 07	wood other than that mentioned in 19 12 06
19 12 08	textiles
19 12 10	combustible waste (refuse derived fuel)
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11
20	Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions

Waste code	Description
20 01	separately collected fractions (except 15 01)
20 01 01	paper and cardboard
20 01 10	clothes
20 01 11	textiles
20 01 38	wood other than that mentioned in 20 01 37
20 01 39	plastics
20 02	garden and park wastes (including cemetery waste)
20 02 01	biodegradable waste
20 03	other municipal wastes
20 03 01	mixed municipal waste
20 03 02	waste from markets

Fuel Oil for standby generator	< 0.1% sulphur content

APPENDIX F

Local Area Potential Heat Users Search

Local Area Potential Heat Users Search

Wealden Works site for the Recycling, Recovery and Renewable Energy (3Rs) Facility

Jeannette Buckle

Document Control

	Name	Signature	Date
Prepared by	Jeannette Buckle		26/10/2016
Checked by	Keith Riley		28/11/2016
Verified by	Keith Riley		28/11/2016

Issue	Date	Status
Final	30 November 2016	For Issue.
Version 2	4 December 2016	Minor amends following comments from RPS

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1. Summary

This report has been produced to provide background research of the potential for local heat and power users in the vicinity of the proposed development for a Recycling Recovery and Renewable Energy Facility (3Rs) on the former Wealden Brickworks off Langhurstwood Road, Horsham, HR12 4QD on behalf of Britaniacrest Recycling Limited. Should planning permission be granted, this facility will take commercial and industrial waste or similar waste types and sort and segregate the materials such as metals, plastics and rubble and recover their value using the latest sorting technology. The facility will have a capacity to treat 180,000 tonnes per year, diverting circa 90% from landfill. The residual materials will be used to produce electricity and potentially heat for export from the site. The facility will be able to export up to 21 Megawatts of electricity into the national grid which would be approximately enough to provide heat, light and power for more than 42,000 homes at current average energy consumption rates.

The facility has been designed to be able to provide a combination of electricity into the national grid and district heating or power should a viable and deliverable solution be forthcoming; either from the start of the operation or at a later date. The ability to supply energy in the form of heat depends also on the capacity to install the necessary infrastructure. Any local direct heat or power users would reduce the amount of energy exported to the national grid.

2. Site Description and Setting

The site is located approximately 700m to the north of A264 and the outskirts of Horsham. The site is bounded, by the railway line to the west and the landfill site to the north east. The site is situated within the Brookhurst Wood site, an industrial dead end, consisting of a landfill, a municipal waste Mechanical Biological Treatment and Anaerobic Digestion plant to the east and the Wealden Brickworks to the south. The site is roughly square in shape and extends to approximately 3.1 hectares. It is defined by steel fencing.

The closest residential properties to the site are situated approximately 210m to the north east at Graylands Lodge, 330 to the south west along Station Road and 290m to the south east on Langhurstwood Road. However, the site is separated from residential premises extensive woodland screening and also by the railway line, to the south west.

3. Site History

The site has a long industrial history and is situated on the former Wealden Brickworks off Langhurstwood Road. Bricks are still manufactured on the adjacent site and it sits alongside the mechanical/biological waste treatment plant operated by Biffa with the Brookhurst Wood landfill site about 900m away. Since 2015 the site has been handling waste materials from local businesses and the district council for processing. The site currently has planning approval to handle 230,000 tonnes a year of industrial and commercial waste.

4. Site assessment for Combined Heat and Power (CHP)

In assessing the potential for CHP in the local area of the site various desk-based studies were undertaken. Firstly a google map search was carried out to primarily identify any potential larger heat or power users near to the site.

An online search using the Department of Energy and Climate Change (DECC) guidance on CHP site https://www.gov.uk/guidance/combined-heat-and-power was undertaken. DECC's website with it's CHP Focus page is aimed at supporting the development of Combined Heat and Power providing useful data to help developers search possible heat users. CHP Focus is a DECC initiative to support the development of combined heat and power in the UK.

A review of a database of local businesses indicative of the local area was undertaken where potential key ones were singled out to obtain further details on their energy consumption.

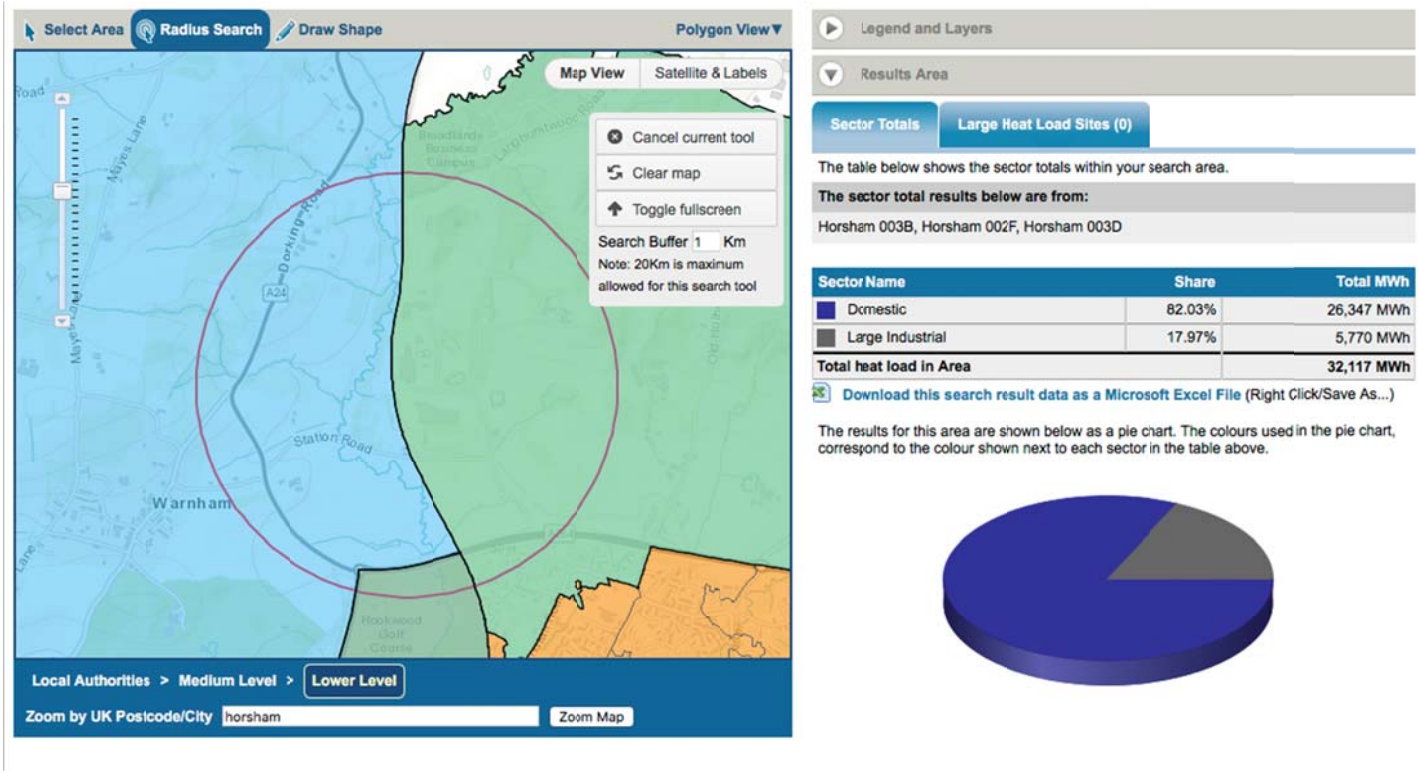
A key criterion to identifying potential viable CHP markets is proximity to the facility generating heat and/or energy, scale of heat or power use and energy demand throughout the year.

5. National Heat Map Results

The total heat load in the area was undertaken using the DECC heat map tool.

The breakdown of energy consumption by sector up to a 1km radius of the site shows a total heat load of 32,117 MWh thermal. The majority, over 82%, of which is domestic. Due to the nature of domestic heating in terms of fluctuating heat load requirements and multiple units it does not provide a suitable base on its own to support good quality CHP. That said the heat map shows large industrial users at 5,770MWh.

Diagram 1 - At 1 km



At a radius of 10km from the site the heat load in the area is 969,365 MWh thermal. Again the majority is domestic at over 89%. As you will see this search did not reveal any potential large heat users either.

Diagram 2 - At 10KM

Sector Name	Share	Total MWh
Communications and Transport	8.38%	81,188 MWh
Commerical Offices	0.11%	1,113 MWh
Domestic	89.32%	865,879 MWh
Education	0.17%	1,644 MWh
Government Buildings	0.01%	77 MWh
Hotels	0.68%	6,546 MWh
Large Industrial	0.99%	9,606 MWh
Health	0.04%	365 MWh
Other	0.02%	235 MWh
Small Industrial	0.06%	601 MWh
Retail	0.06%	547 MWh
Sport and Leisure	0.15%	1,458 MWh
Warehouses	0.01%	107 MWh
Total heat load in Area		**969,365 MWh**

6. Local business results

To identify key heat users a more detailed search was undertaken, taking account of the key criterion, namely proximity to the facility generating heat and/or energy, potential scale of heat or power use. As well as a broad brush approach to review the potential of a viable heating scheme taking consideration of logistical and technical issues and also in terms of long term energy supply agreements and therefore the potential viability of such a CHP scheme.

7. Initial findings

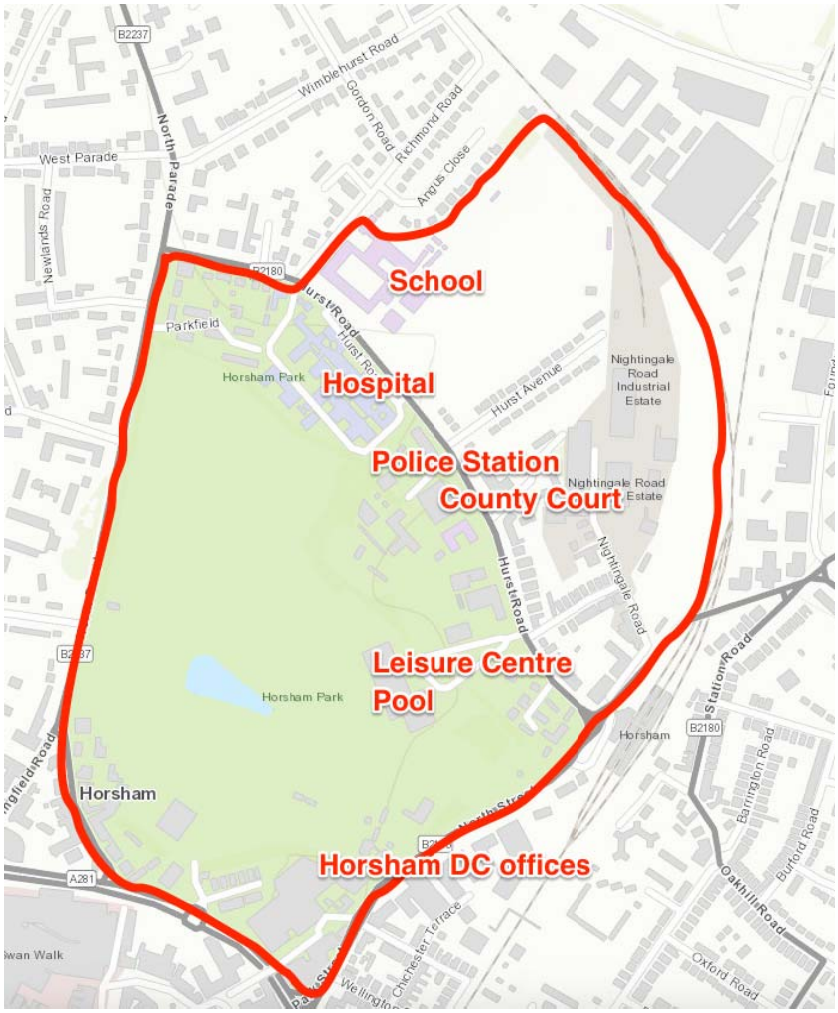
There are businesses to the north east but again in terms of potential heat users these are too small and mainly office based business premises. To the east of Langhurstwood Road there is a large development proposed, which this summer 2016, the developers Liberty Property Trust, submitted an outline planning application for a mixed use site comprising extensive housing, shops and light industrial premises, leisure and so on. As there is not sufficient detail in their plans online and as this proposal has yet to be given planning permission at this time it is considered not appropriate to review the potential in any further detail especially as it would appear the majority would be dwellings.

As you will see from Diagram 1, which covered an area up to 1km of the site, large industrial heat users equaled 5770MWh. Due to the rural setting of the site there are very few locations with this consumption, so at this point in the desk study research it is assumed that the large industrial potential heat user is the brickworks across the road to the south from the proposed development.

At this time along with the brickworks the most realistic and potentially viable area in terms of potential heat users would be the south, in the town of Horsham. Roughly 2.5 – 3.5kms from the site there is a collection of government buildings that might prove to deliver a viable scheme linking buildings such as the College of Richard Collyer, Horsham Hospital, Horsham Police Station, Horsham County Court, pavilions in The Park Leisure Centre which includes a pool and lastly Horsham District Council offices. All these facilities are close together in one area. Also in terms of practically these premises could be connected via piping following the railway line that is on the western boundary of the 3Rs site at Langhurstwood Road and leads in almost a direct straight line to the buildings referred to above and on Drawing 3 in the town of Horsham. Also, as can be seen in Drawing 3, installation of pipework is hugely simplified with much reduced cost and disruption as pipes, as these could run along Horsham Park and would need to cross just one single lane side road.

See Drawing 3 below which shows the locations of interest in terms of potential heat users in one area. The heat load for this area circled in red on this drawing is 33,451 MWh. This is significant, but not large and therefore worth exploring should the 3Rs project proceed, but it is diverse and will be difficult secure within a single network.

Drawing 3 – Horsham Park Area



Information was gathered using various means including google search on aerial maps, various desk and location based evaluation.

8. Conclusions

The current heat load in the general area is relatively small and would not give good quality CHP meeting the requirements of Ofgem CHPQA without an extensive network and suffer from low consumer density. There is, however, a real potential opportunity to provide heat to the brickworks on the adjacent site to the development in view of its proximity. Also as this is a brickworks, in general terms it would be large industrial heat user due to firing and drying the bricks and have a constant demand – optimally required when networked to a facility such as the proposed 3Rs Facility. To date, only general discussions have been held, and no site-specific arrangements have taken place with the owners of the brickworks. Should planning permission be granted this will be pursued further.

It is also proposed that, should planning permission be granted, potential sites identified in drawing 3 in this report, and any other opportunities that come to light, will be looked at in more detail and preliminary discussions should be undertaken with those potential larger heat users to evaluate their heat load requirements throughout the year and general viability considerations of such a scheme with Horsham District Council properties. Any development is likely, however, to take time and is a long-term prospect.

APPENDIX G

Carbon Assessment

Vismundi

BRITANIACREST RECYCLING

WEALDEN WORKS 3Rs FACILITY

CARBON ASSESSMENT

Keith Riley
Vismundi Limited

Document Control

	Name	Signature	Date
Prepared by	Keith Riley		10/12/2016
Checked by			
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Carbon Assessment

1. Introduction

1.1. This document provides a greenhouse gas assessment of the proposed facility, based on an estimate of its operational carbon footprint. Emissions from the proposed thermal treatment facility operating in electricity-only mode and potential combined heat & power (CHP) mode have been estimated. For comparison, the greenhouse gas emissions associated with emissions from landfilling of waste have been estimated.

1.2. A key driver in forcing waste producers and disposers to consider their waste management systems has been the Landfill Directive, which introduced a tax system to discourage the landfilling of wastes with methane producing potential. The reason for this is that methane is a powerful greenhouse gas that is released to the atmosphere as biodegradable wastes break down under anaerobic conditions in the landfill site.

1.3. Whereas in the recent past Government has been able to apply further mechanisms to the disposal of municipal wastes - such as the Landfill Allowance Trading Scheme (LATS) – which acted to drive local authorities away from using landfill and move the management of municipal waste up the waste management hierarchy, this did not apply to commercial and industrial wastes. The challenge with commercial and industrial wastes is that the same greenhouse gas mechanisms apply, but the only driver has been the Landfill Tax itself.

1.4. Avoidance of landfill can only be achieved by the adoption of materials recovery, recycling and energy recovery and these require infrastructure to be developed to enable them to be achieved. In the absence of such infrastructure, the avoidance of landfill and the reduction in greenhouse gases that accompany it will not be achieved. The purpose the Wealden 3Rs application is to provide such infrastructure that can be used for the treatment of wastes produced by business and commerce – currently not available through the facilities developed by the local authorities.

1.5. The purpose of the Wealden 3Rs development is, therefore, to both provide reliable and effective waste management and also to limit the amount of greenhouse gases arising from the disposal of the waste.

2. The Waste Management Hierarchy

2.1. The Waste Management Hierarchy is the fundamental principle of sustainable waste management laid down by the European Waste Framework Directive (2008/98/EC). The most effective management of greenhouse gas emissions from waste disposal is to limit the quantities of waste being disposed of in the first place. However, despite any source separation for recycling and reuse, the waste disposal system still requires the management and disposal of the residual waste stream – ie. a stream that is difficult or impossible to segregate at source, but will still contain some recyclable material, and in the absence of infrastructure to treat it, would be disposed of by landfill.

2.2. The objective of the Wealden 3Rs facility is to accept such wastes, extract for reuse or recycling the materials that can be effectively recovered and then recover the energy content of the residual material. It is anticipated that landfill disposal will be reduced to less than 5% by weight of the incoming waste stream – and even all residues from the energy recovery process will be recycled. As described in Chapter 4 of the accompanying Environmental Statement, an alternative technology assessment determined that the best arrangement for achieving this objective is a mechanical pre-treatment facility, followed by an energy recovery facility. It was then determined that the most reliable energy recovery technology under the circumstance would be moving grate combustion.

2.3. The proposal, then is for a facility that will accept the residual commercial & industrial waste stream, segregate out metals, some plastics and inert materials for recycling and thermally treat the remaining a proportion of the waste, dramatically reducing the waste volume, recovering the useful embodied energy within the materials and rendering the combustion residues inert in terms of greenhouse gas releases. The energy will be recovered in the energy from waste facility in the form of electricity exported to the grid. Whilst the plant will be built with the capability to export heat to local consumers, and thus potentially operating as a Combined Heat and Power (CHP) plant - no local demand for heat has been secured at present and initially the facility may generate electricity only. This may change if developments in the surrounding area allow heat customers to be secured.

2.4. Waste will be delivered from arisings in West Sussex and the southern counties of East Sussex, Surrey, and maybe Hampshire.

3. Methodology and Assumptions

3.1. This assessment provides an estimate of the greenhouse gas emissions from the operational phase of the proposed 180,000 tpa capacity thermal treatment facility, against a baseline of greenhouse gas (GHG) emissions from landfilling of waste, which the current alternative. It therefore allows an assessment of the emissions reductions which would be achieved by the proposed facility against the current "business as usual" situation of landfilling the waste.

3.2. The majority of potential greenhouse gas emissions arise through the operational phase of the proposed development, rather than its construction, and therefore for the purposes of this assessment the operational phase only has been considered.

3.3. Due to the difficulty and time taken to develop heat networks, at this stage of the application process, customers for district heat distribution from the proposed facility have not been secured. The facility will, therefore, be built with the capability to export heat, but will initially operate in electricity generation mode. However, the nearby brickworks, has been identified as a potential future heat customer. The proposed North Horsham mixed use development also offers potential for heat use in the future.

3.4. Hence, this assessment has considered two scenarios for energy generation from the proposed thermal treatment facility: generation of electricity only, in which electricity sold displaces grid electricity production; and generation of electricity and heat in Combined Heat and Power (CHP) mode in which heat sold displaces on-site heat generation at potential local heat consumers' premises.

3.5. In assessing greenhouse gas emissions it is necessary to establish both the boundaries and the constituent elements of the assessment, which have been defined as follows:

3.5.1. **Process emissions** – greenhouse gas emissions from the waste treatment processes or from landfilling of the wastes which the new facility seeks to divert to energy generation. This may be through, for example, combustion of waste in the thermal treatment facility or through the release of methane from biodegradable wastes degrading in landfill sites. In addition this category includes any energy consumed in the combustion process, such as auxiliary fuels or electricity, and includes the energy consumed in bulking of waste at waste transfer stations (WTS).

3.5.2. **Avoided emissions** – emissions that are avoided by the production or recovery of useful products from the waste, which avoid the need to consume resources in the production of virgin materials and thereby release emissions to the atmosphere. For example, electricity recovered from the thermal treatment facility can avoid the need to consume fossil fuels directly in the production of this energy at power stations. Another example is recycling, in which re-use or recycling of the residues (*e.g.* bottom ash or ferrous metals) can avoid the need to consume resources in the replacement of such materials.

3.5.3. **Transportation** – this includes collection of waste and delivery to site alongside transportation of other key reagents and fuels required to support the operation of the facility. Transport emissions are also associated with disposal of residues from waste treatment. Transport of materials recycled is accounted for in the product life cycle analysis. Derived avoided emissions factors, and transport emissions for movement of materials to recycling are therefore not estimated separately in order to avoid double-counting. Staff transport for site workers is excluded, as such personal transport is outside the scope of this assessment.

3.6. Short-cycle (biogenic) and fossil (non-biogenic) carbon

3.6.1. To aid understanding of the assessment it is important to understand the distinction between short-cycle (or biogenic) carbon sources and those which are fossil (or non-biogenic) carbon sources. Essentially there are two types of carbon that are considered within greenhouse gas footprint assessments:

- Biogenic (short-cycle) carbon - the biogenic sources feed the short-term carbon cycle, which assumes such carbon was taken up recently by the biomass when it grew. If such materials are grown sustainably there is negligible or beneficial land use change and an equilibrium is reached between carbon taken up from and that released to the atmosphere; and

- Non-biogenic (fossil) carbon - fossil sources which feed the long-term carbon cycle, based on carbon which prior to combustion was stored underground for a long time and hence is regarded as a net addition to the atmosphere.

3.6.2. The Intergovernmental Panel on Climate Change guidelines on greenhouse gas assessment and reporting stipulate that biogenic emissions of carbon should be dealt with in the assessment of emissions from waste as follows:

'Consistent with the 1996 Guidelines (IPCC, 1997), only CO_2 resulting from oxidation during incineration and open burning of carbon in waste of fossil origin (e.g. plastics, certain textiles, rubber, liquid solvents, and waste oil) are considered net emissions and should be included in the national CO_2 emissions estimate. The CO_2 emissions from combustion of biomass materials (e.g. paper, food, and wood waste) contained in the waste are biogenic emissions and should not be included in national total emission estimates. However, if incineration of waste is used for energy purposes, both fossil and biogenic CO_2 should be estimated. Only fossil CO_2 should be included in national emissions under Energy Sector while biogenic CO_2 should be reported as an information item also in the Energy Sector.'

3.6.3. Biogenic emissions are considered to be from biomass sources and are therefore treated, like biomass renewables, as having a zero carbon emissions factor, but are reported separately as an information item.

4. Waste input

4.1. The waste input to the thermal treatment facility is assumed to be based on the capacity of the plant to treat approximately 180,000 tonnes per annum of commercial and industrial (C&I) waste. The additional 50,000 tonnes being recycled from the facilty will be ignored, as this would probably take place whether the thermal treatment facility was constructed or not.

4.2. The input waste composition is assumed to be as shown in Table 1:

Table 1

Waste stream components	Weight %
Paper	9.77
Cardboard	4.19
Plastic film	4.41
Dense plastics	5.22
Textiles	2.11
Misc. non-combustibles	6.12
Glass	8.13
Putrescibles	44.75
Ferrous metals	2.85
Non ferrous metals	2.61
Misc. combustibles	9.87
Total	**100**

5. Proposed Thermal Treatment Facility

5.1. The proposed thermal treatment facility will be located on the applicant site off Langhurstwood Road, Horsham , with the capacity to treat 180,000 tpa of residual C&I Waste.

5.2. **Process emissions**

5.2.1. Due to the oxidisation of non-biogenic carbon contained in the waste (for example, plastic waste) the process results in direct emissions of fossil greenhouse gases to the atmosphere. It is assumed that all of the fossil carbon is oxidised and released in the process, minus a small proportion of carbon which remains in bottom ash residues. Biogenic emissions from the process (e.g. from burning organic waste) have also been estimated, but are reported separately from the overall balance, as consistent with IPCC guidelines.

5.2.2. To ensure that the facility complies with the requirements of the Industrial Emissions Directive (2010/75/EU), a minimum temperature of 850°C must be maintained for at least 2 seconds when wastes are being burned. The proposed facility is therefore equipped with supplementary burners which are fueled with gas oil and GHG emissions have been estimated based on the estimated annual fuel consumption.

5.2.3. In addition to the CO_2 emissions there is potential for nitrous oxide (N_2O) to be emitted from waste combustion due to of operation of the abatement plant to control NOx emissions. The proposed facility will use urea as a reagent for NOx control, and a resultant N_2O concentration of 16 mg/m^3 of exhaust stack flow is assumed.

5.2.4. Under the Industrial Emissions Directive, carbon in ash must not exceed 3% w/w, so it is assumed that all combustion residues (both bottom ash and air pollution control residue) are inert with regard to GHG emissions. The non-oxidised carbon sequestered in incinerator bottom ash is estimated, as is the atmospheric carbon dioxide absorbed into bottom ash during the weathering period (assumed total absorption of CO_2 is equivalent to 1 % of the weight of dry bottom ash.

5.3. **Avoided emissions.**

5.3.1. It is assumed that 80 % of ferrous metals and 60 % of non-ferrous metals are recovered from the waste-stream at the processing facility. Materials recycling avoids emissions from the production of metals from virgin material that would otherwise have occurred.

5.3.2. It is also possible to avoid emissions through the recycling of the combustion residues (bottom ash minus metals) to the construction industry for use as aggregate, again avoiding the need to consume resources in the production of virgin materials. It is assumed that 100% of the bottom ash will be sold for use as aggregate.

5.3.3. The avoided emissions for each of the materials concerned are taken from Carbon Balances and Energy Impacts of the Management of UK Wastes, ERM (2006) and shown in Table 2.

Table 2: Emissions avoided through material recovery

Material	Avoided emissions (t CO_2/t)
Ferrous metals	0.705
Non-ferrous metals	12.30
Inert aggregate	0.0023

5.3.4. Electricity generated by the thermal treatment facility and exported to the grid displaces conventional grid electricity production, avoiding emissions that would have been associated with it. Similarly, any heat exported by the Facility to nearby consumers could avoid the need to generate heat from combustion of fuel or via electricity use at those premises.

5.3.5. The 3Rs Facility will be "CHP Ready", and if a heat network can be connected, it will be able to achieve much higher total efficiency operating in CHP mode - exporting both heat and electricity – than in pure generation mode. Although a heat study has been carried out and at least one potential future customer for exported heat has been identified, it is expected that initially the facility will export electricity only. Hence two scenarios are considered here:

- Electricity only
- CHP mode, generating electricity and heat

5.3.6. The electricity-only scenario is conservative in terms of GHG emission savings estimated, whilst the CHP scenario is more optimistic. In the electricity-only scenario, a thermal input of approximately 81.0 MW is assumed, with 21 MW recovered as electricity and exported to the grid at a net efficiency of 28.4 %.

5.3.7. In view of the uncertainty about potential demand for heat in CHP mode, the optimal position of a net efficiency of 75 % is assumed, with heat export at 60 % efficiency and electricity at 15 % of the same 81MW thermal input. This is equivalent to 51.60 MWth heat export and 12.90 MW electricity export.

6. Electricity and Heat Displaced – Greenhouse Gas Emissions Factors

6.1. Energy can be recovered in usable forms via heat or electricity. If processes result in the production of heat or electricity for export and use, this can avoid the need to take electricity from the national grid or to combust fossil fuels to produce heat. To enable a consistent assessment of the emissions avoided through the recovery of energy it is necessary to derive emissions factors that can be applied to every unit of heat or electricity captured and used.

6.2. Electricity exported is assumed to displace electricity drawn from the national grid. As the electricity in the grid is generated from coal, oil, gas, nuclear and renewables it is necessary to account for all these sources in the emissions factors. A GHG emission factor for the UK grid mix of electricity generation published by UK Government "Greenhous Gas Reporting – Conversion Factors 2016 is used to calculate the conventional electricity generation emissions avoided by production of electricity in a termal treatment facility of 0.41205 kgCO2e/kWh electricity generated.

7. Heat

7.1. In the CHP scenario, potential heat demand an overall emissions factor of 0.22963 kgCO2e/kWh heat displaced is used, taken from the boiler displaced data stated in 2016 Government GHG Conversion Factors for Company Reporting (September 2016). This is probably a conservative factor, as not all premises have central heating served by boilers.

8. Landfilling of Waste

8.1. It is assumed that all waste processed in the proposed thermal treatment facility would otherwise have been sent to landfill. Greenhouse gas emissions are released from a landfill site over time as the waste degrades. The avoided emissions from waste that would have been landfilled have been estimated using the greenhouse gas IPCC methodology stated in the "Intergovernmental Panel on Climate Change 2006, 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 5: Waste". This method treats greenhouse gas emissions as if they are produced instantaneously after the waste has been landfilled. This approximation is reasonable for the purposes of this study, where the main focus is on the estimation of emissions from the 3Rs Facility. A proportion of landfill gas is assumed to be utilised for energy recovery via landfill gas engines. A proportion of carbon in waste sent to landfill is assumed to be sequestered and not to contribute to climate change through atmospheric release.

8.2. Key parameters are:

- Degradable organic carbon content (DOC) – fraction of waste that is biodegradable carbon;
- Dissimilable DOC – fraction of DOC that mineralises to CO2 and or CH4. The remainder is assumed not to degrade to gaseous products under the landfill condition;
- Methane content of the landfill gas (the rest is assumed to be carbon dioxide)

8.3. For the purposes of this study it is assumed that:

- 60 % of landfill gas is CH_4 (the remainder is short-cycle CO_2);
- The CH_4 usable capture rate at landfill is 50 % of the methane after accounting for oxidization;
- CH4 oxidisation to CO_2 by microbes is not assumed in this assessment
- A landfill gas engine efficiency is 38 %

9. Transport.

9.1. Emissions from transport are associated with the collection of waste by refuse collection vehicles (RCVs), transfer of waste in bulk from WTS to the Facility, and disposal of combustion residues from the Facility. In addition, emissions associated with delivery of process inputs (for example, reagents used in APC and gas oil for supplementary burners) to the facility are also estimated. Normally, transport from a facility is a CO_2 burden, but in the case of the 3Rs Facility, the thermal treatment plant will be processing residual waste that is already permitted to be processed at the site. Hence the impact of the thermal treatment facility will be to reduce the number of vehicles leaving the site carrying material to landfill. If there are 45,000 tpa of residue, this results in a reduction of transport equivalent to: (180,000 – 45,000)/20 = 6,750 vehicle journeys to landfill each year. If it is assumed that the landfill used is Redhill ie 32 Km, the vehicle-kilometers saved is 216,000 per year.

9.2. Bottom ash is assumed to be processed in a facility, at a location equi-distant to the landfill.

9.3. APC residues are assumed to be disposed of at a specialist Treatment Centre, at a distance of approximately 250 km from the proposed 3Rs Facility.

9.4. Other thermal treatment facility process inputs are assumed to be delivered by road, from sources also at 32 km distance.

9.5. Therefore the net transport impact of the facility is:

- The distance for Bottom Ash transportation (netted off in the vehicle distance calculated in 9.1 above); plus
- The additional travel distance for disposal of the APC residues (approximately 5400 tpa), ie 270 vehicles per year at an additional distance of 218 Km – 58,860 Km per year.
-

9.6. Therefore the impact of the 3R Facility is to reduce vehicle-Kilometers by 157,140 Km per year, and from the Department of Energy & Climate Change standard set of GHG conversion factors 2016 for all HGVs (diesel), the CO_2 conversion factor is 0.702022 per Km.

10. Results

10.1. The results of the assessment are shown in Table 3.

Table 3: Summary of estimated emissions (tCO_2 equivalent per annum)

Emissions Source	Proposed Facility Electricity only	Proposed Facility with CHP
Process	+50,955	+50,955
Transport	-110,315	-110,315
Avoided CO_2		
Displaced Electricity Generation	-69,224	-42,521
Displaced Heat Generation	0	-94,791
Materials Recovery	-37,684	-37,684
Landfill Diversion	-76,505	-76,505
Total	-242,773	-310,861

11. Conclusions

11.1. The assessment of the potential carbon footprint for the proposed 3Rs Facility shows that it performs well, providing an estimated reduction in greenhouse gas emissions of approximately 242,700 tonnes of CO_2 equivalent per annum operated in electricity-only generation mode, and 310,800 tonnes of CO_2 equivalent per annum if it is able to be extended to run in CHP mode. This saving with electricity generation alone is equivalent to the annual emissions from approximately 39,700 homes.

11.2. Emissions savings from avoided landfilling of waste amount to approximately 76,500 t CO_2e per annum, and further savings of 38,000 t CO_2e per annum are achieved through recovery and recycling of metals from combustion residue (bottom ash).

11.3. Whilst combustion of waste in the thermal treatment facility produces emissions of 51,000 tCO_2e per annum, these are balanced by emissions savings from displaced electricity generation from the grid mix of mainly conventional power stations of between 69,200 t CO_{2e} per annum.

11.4. Over the expected lifetime of the proposed facility (assumed to be 25 years) total GHG emissions savings from the EfW facility amount to at least 6.06 million tonnes of CO_2 equivalent compared to the current landfilling of the waste, and over 7 million tonnes of CO_2 equivalent if CHP is developed early in its operational life.

11.5. In summary, the proposed facility is anticipated to have a significant positive impact on greenhouse gas emissions within West Sussex compared to the existing commercial and industrial waste management arrangements.