



# Wealden Recycling, Recovery and Renewable Energy Facility: Environmental Statement Volume I:Text

March 2018

On behalf of Britaniacrest Recycling Ltd

# **Wealden Recycling, Recovery and Renewable Energy Facility: Environmental Statement**

**Volume 1: Text**

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**On behalf of Britaniacrest Recycling Ltd**

**Our Ref: OXF9198**

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### Acronyms

AADT	Annual Average Daily Traffic
AAWT	Annual Average Weekday Traffic
ACC	Air-cooled Condenser
ACM	Asbestos Containing Material
ADMS	Atmospheric Dispersion Modelling System
AONB	Area of Outstanding Natural Beauty
AQEG	Air Quality Expert Group
AQMA	Air Quality Management Area
AQS	Air Quality Strategy
ARUN	Automatic Rural and Urban Network
AWTS	Aggregate Treatment and Recycling Facility
BAP	Biodiversity Action Plan

BAT	Best Available Techniques
BGS	British Geological Survey
BoCC	Birds of Conservation Concern
CEMP	Construction Environmental Management Plan
CERC	Cambridge Environmental Research Consultants
CFMP	Catchment Flood Management Plan
CHP	Combined Heat and Power
CLO	Contaminated Land Officer
COMEAP	Committee on the Medical Effects of Air Pollutants
Cr <sup>VI</sup>	Hexavalent Chromium
CTMP	Construction Traffic Management Plan
CWG	Common Working Group
DCMS	Department of Culture, Media and Sport
Defra	Department for Environment, Food, and Rural Affairs
DMP	Dust Management Plan
DMRB	Design Manual for Roads and Bridges
DTM	Digital Terrain Model
DTS	Desk Top Study
EA	Environment Agency
EAL	Environmental Assessment Level
EclA	Ecological Impact Assessment
EHO	Environment Health Officer
EIA	Environmental Impact Assessment
EMF	Electro-Magnetic Field
EPA	Environmental Protection Act
EPAQS	Expert Panel on Air Quality Standards Guidelines
EPR	Environmental Permitting Regulations
EPUK	Environmental Protection UK
EQS	Environmental Quality Standard
ES	Environmental Statement
ESA	Environmental Statement Addendum

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EU	European Union
FZ1	Flood Zone 1
GLVIA3	Guidelines for Landscape and Visual Impact Assessment 3 <sup>rd</sup> Edition
GPA	Good Practice Advice
GW	Groundwater
HDC	Horsham District Council
HDPF	Horsham District Planning Framework
HDV	Heavy Duty Vehicle
HER	Historic Environment Record
HGV	Heavy Goods Vehicle
HHRA	Human Health Risk Assessment
HLC	Historic Landscape Character
IAQM	Institute of Air Quality Management
IBA	Incinerator Bottom Ash
ICNIRP	International Committee on Non-Ionising Radiation Protection
IDB	Internal Drainage Board
IED	Industrial Emissions Directive
IEMA	Institute of Environmental Management and Assessment
IPPC	Integrated Pollution Prevention and Control
LA	Local Authority
LCLG	Langhurstwood Community Liaison Group
LDV	Light Duty Vehicle
LGV	Light Goods Vehicle
LHA	Local Highways Authority
LiDAR	Light Detection and Ranging
LLCA	Local Landscape Character Area
LLFA	Lead Local Flood Authority
LNP	Local Nature Partnership
LNR	Local Nature Reserve
MBGL	Metres Below Ground Level
MBT	Mechanical Biological Treatment

MSW	Municipal Solid Waste
N/A	Not Applicable
NAEI	National Atmospheric Emissions Inventory
NCA	National Character Area
NERC	Natural Environment and Rural Communities
NNR	National Nature Reserve
NPPF	National Planning Policy Framework
NPPG	National Planning Practice Guidance
ODT	Odour Detection Thresholds
OS	Ordnance Survey
PAHs	Polycyclic Aromatic Hydrocarbons
PCBs	Polychlorinated Biphenyls
PLQRA	Preliminary Land Quality Risk Assessment
PM	Particulate Matter
PPE	Personal Protection Equipment
PPG	Planning Practice Guidance
PRoW	Public Right of Way
PVC	Polyvinyl Chloride
RDF	Refuse Derived Fuel
RMSE	Root Mean Square Error
RPaG	Registered Park and Garden
SAC	Special Areas of Conservation
SFRA	Strategic Flood Risk Assessment
SGV	Soils Guidance Value
SM	Scheduled Monument
SMC	Scheduled Monument Consent
SNC	Sites of Nature Conservation Importance
SPA	Special Protection Areas
SPL	Sound Pressure Level
SPZ	Source Protection Zone
SSOW	Safe Systems of Works

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SSSI	Site of Special Scientific Interest
SuDS	Sustainable Drainage Systems
SWL	Sound Power Level
TEQ	Toxic Equivalent
TMP	Transport/Taffic Management Plan
TOMP	Toxic Organic Micro Pollutant
TP	Trial Pit
TPH	Total Petroleum Hydrocarbon
VOC	Volatile Organic Compound
V/V	Volume by Volume
WFD	Waste Framework Directive
WHO	World Health Organisation
WPA	Waste Planning Authority
WPC	Warnham Parish Council
WSCC	West Sussex County Council
WSWLP	West Sussex Waste Local Plan
WTS	Waste Transfer Station
ZTV	Zone of theoretical visibility
3D	Three Dimensional
3Rs	Recycling, Recovery and Renewable Energy

## Glossary

**Ambient sound level:** BS 4142 defines the ambient noise level as: 'Totally encompassing sound in a given situation at a given time usually composed of sound from many sources near and far.' It is sometimes used to mean an environmental noise level defined specifically in terms of the LAeq noise index. The terms ambient and background may be colloquially synonymous when describing environmental noise levels.

**Background sound level ( $L_{A90}$ ):** BS 4142 defines the background noise level as: 'The A-weighted sound pressure level of the residual noise at the assessment position that is exceeded for 90 % of a given time interval, T, measured using time weighting, F, and quoted to the nearest whole number of decibels' (i.e. a noise level defined specifically in terms of the  $L_{A90}$  noise index). The terms ambient and background may be colloquially synonymous when describing environmental noise levels.

**Broadband:** a noise containing a wide range of frequencies (for example, a whooshing noise like a waterfall or out of tune analogue radio).

**Conservation Area:** A Conservation Area is an area of special architectural or historic interest, the character or appearance of which it is desirable to preserve or enhance.

**Decibel (dB):** units of sound measurement and noise exposure measurement.

**Deposited Dust:** Dust that has settled out onto a surface after having been suspended in air

**Dust:** Solid particles suspended in air or settled out onto a surface after having been suspended in air

**Effect:** The consequences of an impact, experienced by a receptor

**Emission:** 1. the act of emitting or sending forth; 2. (Physics / General Physics) energy, in the form of heat, light, radio waves, etc., emitted from a source; 3. a substance, fluid, etc., that is emitted; discharge. (Collins English Dictionary)

**Equivalent continuous sound pressure level ( $L_{AeqT}$ ):** is defined in BS 7445 as the 'value of the A-weighted sound pressure level of a continuous, steady sound that, within a specified time interval, T, has the same mean square sound pressure as a sound under consideration whose level varies with time'. In more straightforward terms, it is a measure of the noise dose or exposure over a period. It is a unit commonly used to describe construction noise and noise from industrial premises and is the most suitable unit for the description of other forms of environmental noise. It is also the unit best suited to assessing community response.



**Façade/Free-field:** This applies to the positions for either measurement or prediction. A façade position is one that effectively represents noise levels at a building but is conventionally taken at a position 1 m from the building; this includes reflections from the building. A free-field position is one that is at least 3.5 m from a building where reflection effects are not significant. The difference between a noise level measured at a façade position and a free-field position, assuming that there is a specific noise source that causes reflections, is that levels are around 3 dB higher at the façade, due to the reflection effects.

**Frequency (Hz):** the pitch of the sound, measured in Hertz. The tonal quality of a sound is described and measured in terms of the frequency content and is commonly expressed as octave or third octave bands, the latter being the division of the octave bands into three for finer analysis, across the frequency spectrum. The smaller the octave band or third octave band centre frequency number defined in terms of Hz, the lower the sound. For example, 63 Hz is lower than 500 Hz and is perceived as a deeper sound. The attenuation due to air absorption and natural barriers increases with frequency i.e. low frequencies are always the most difficult to control.

**Heritage Asset:** A building, monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest. Heritage assets include designated heritage assets and assets identified by the local planning authority (including local listing).

**Highway Link:** Length of highway

**Historic Environment:** All aspects of the environment resulting from the interaction between people and places through time, including all surviving physical remains of past human activity, whether visible, buried or submerged, and landscaped and planted or managed flora.

**Historic Environment Record (HER):** Information services that seek to provide access to comprehensive and dynamic resources relating to the historic environment of a defined geographic area for public benefit and use.

**Immission:** The act of immitting, or of sending or thrusting in; injection; - the correlative of emission. (Webster's Revised Unabridged Dictionary).

**Impact:** The change in atmospheric pollutant concentration and/or dust deposition. A scheme can have an 'impact' on atmospheric pollutant concentration but no effect, for instance if there are no receptors to experience the impact.

**Impulsive noise:** any type of single or repeated noise of short duration, e.g. the noise from an explosion or the noise of a power press.

**Listed Building:** A building that has been placed on the statutory List of Buildings of Special Architecture or Historic Interest.

**Pedestrian Amenity:** The convenience or comfort of movement of foot

**Rating level,  $L_{A,T,r}$ :** BS 4142 defines the rating level as 'The specific noise level plus any adjustment for the characteristic features of the noise.'

**Receptor:** A person, their land or property and ecologically sensitive sites that may be affected

**Registered Battlefield:** A battlefield of historic value, registered on the English Heritage 'Register of Historic Battlefields'.

**Registered Parks and Gardens:** Designated parks and gardens which are recorded on the English Heritage 'Register of Historic Parks and Gardens of special historic interest in England'.

**Setting of a heritage asset:** The surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral.

**Severance:** Real or perceived difficulties moving between one part of a community to another

**Scheduled Monument (SM):** Archaeological site that is recorded on a schedule of monuments by the Secretary of State under the Ancient Monuments and Archaeological Areas Act 1979. These monuments are recognised as being of national importance and are legally protected and conserved.

**Sound Pressure Level (SPL):** Sound pressure is the dynamic variation of the static pressure of air and is measured in force per unit area. Sound pressure is normally represented on a logarithmic amplitude scale, which gives a better relationship to the human perception of hearing. The sound pressure level is expressed in decibels (dB) and is equal to 20 times the logarithm to the base 10 of the ratio of the sound pressure at the measurement location to a reference sound pressure. The reference sound pressure in air is normally taken to be 20  $\mu$ Pa, which roughly corresponds to the threshold of human hearing.

**Sound Power Level (SWL,  $L_w$ ):** A sound power level is a measure of the total power radiated as noise by a source in all directions. It is a property of the source and is essentially independent of the measuring environment. The sound power level of a source is expressed in decibels (dB) and is equal to 10 times the logarithm to the base 10 of the ratio of the sound power of the source to a reference sound power. The reference sound power in air is normally taken to be 10-12 watt.

**SoundPLAN:** A computer software package that uses a ray-tracing numerical modelling approach to predict acoustic propagation from industrial and/or transport noise sources. The prediction methodologies follow national and international standards.

**Specific sound level  $L_s$ :** BS 4142 defines the specific noise levels as 'The equivalent continuous A-weighted sound pressure level at the assessment position produced by the specific noise source over a given reference time interval.'

**TEMPRO:** Software designed to predict traffic growth based on the National Transport Model NTM

**Trackout:** The transport of dust and dirt from the construction/demolition site onto the public road network, where it may be deposited and then re-suspended by vehicle using the network.

**Tonal:** Noise sources sometimes contain pure tone components that can be identified as hums, whistles etc. The presence of these tonal components is sometimes considered to add an extra, annoying quality to the noise.

**World Heritage Site:** Sites, places, monuments or buildings of 'Outstanding Universal Value', recognized as such under the 1972 UNESCO Convention Concerning the Protection of the World Cultural and Natural Heritage.