A.1 NON- TECHNICAL SUMMARY

This Non-Technical Summary has been prepared in accordance with Article 12(1)(u) of the Waste Management (Licensing) Regulations S.I. 395 of 2004. Sub-articles (a) to (t) of Article 12 are addressed below.

Article 12(1)
(a) General Details

Clean (Irl) Refuse & Recycling Ltd.,
Ballinagun West,
Cree,
Co. Clare.
065 9059092
065 6891349
www.clearnirl.com
Company Registration Number 152666

(b) Planning Authority

The development is proposed for a site in the functional area of
Clare Co. Co.,
New Road,
Ennis,
Co. Clare.
065 6821616
065 6828233

(c) Sanitary Authority
The facility is not connected to mains sewer and treats domestic wastewater using a wastewater treatment unit and tertiary polishing system prior to discharge to a percolation area on site.

(d) Location
The proposed facility will be located in the townland of Ballinagun West, Cree, Co. Clare. National Grid Reference 1660E, 1027N

(e) Nature of the Development
Clean (Irl) Refuse & Recycling Ltd., Cree, Co. Clare operate an existing waste transfer station located in a rural area on a c.2.6ha site in the townland of Ballinagun West. The facility has been in existence since 1984 with the main waste activity being dry recyclables processing. The facility operates a waste collection service from domestic and commercial customers under permits for Co. Clare, Co. Limerick, Limerick City and Co. Kerry. All waste that is collected is processed at this site in Cree, Co. Clare. The proposed development will be located at the existing Clean (Irl) Refuse & Recycling Ltd site to accommodate an increase in annual tonnage intake, the

introduction of new waste processing activities and the expansion of the site area from c2.6ha to c.3.0ha. An Environmental Impact Statement has been prepared in support of a Waste Licence Application to the Environmental Protection Agency and subsequently to support a planning application to Clare County Council. The facility existing annual tonnage intake is capped at 21,000 tonnes for waste handling and at 5,000 tonnes for the annual disposal fraction to landfill. The development of the site will allow the facility to expand the business to include new waste processing methods and increase the current tonnes per annum from 21,000 tonnes to 64,600 tonnes.
The proposed infrastructure development will include:

- Biostabilisation building with installation of in-vessel tunnels
- Extension to existing processing buildings
- Relocation of glass bunkers
- Provision to End of Life Vehicle unit
- Relocation of existing diesel tank bunded storage area
- Wheelie bin/truck wash service area
- Wheel wash
- Biomass Recovery Plant
- Hardstanding skip storage area

The introduction of new waste processes/activities which will include:

- Biostabilisation (in-vessel tunnels in an aerated system) of brown waste
- End of Life Vehicle processing
- Wheelie bin/truck wash
- Wheel wash
- Biomass recovery and electricity production
- Skip storage

It is proposed to alter the existing operational hours to the following hours of operation:

Proposed hours of operation:

7a.m. to 10p.m. Monday to Friday
7a.m. to 2p.m. Saturday

Proposed hours of waste acceptance/handling:

8a.m. to 8p.m. Monday to Friday
8a.m. to 1p.m. Saturday

(f) Class of Activity
The principal activity will be Class 2 of the Fourth Schedule:

'Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes).'

The relevant waste disposal and waste recovery activities, as per the Third and Fourth Schedules of the Waste Management Acts 1996 to 2008 to which this application relates are:

Third Schedule – Waste Disposal Activities

Class 12: 'Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule.'

Class 13: 'Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.'

Fourth Schedule – Waste Recovery Activities

Class 2: 'Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes).'

Class 3: 'Recycling or reclamation of metals and metal compounds.'

Class 4: 'Recycling or reclamation of other inorganic materials.'

Class 9: 'Use of any waste principally as a fuel or other means to generate energy. '

Class 11: 'Use of waste obtained from any activity referred to in a preceding paragraph of this schedule.'

Class 12: 'Exchange of waste for submission to any activity referred to in a preceding paragraph of this Schedule.'

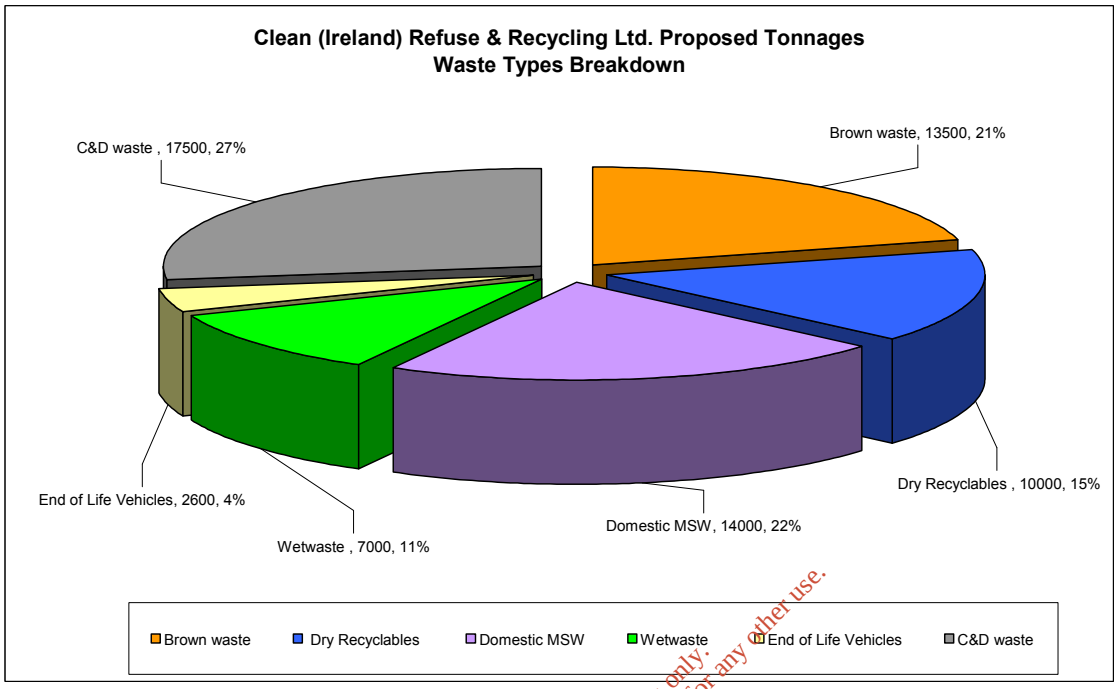
Class 13: 'Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste is produced.'

(g) Quantity of Nature of Waste (EWC Code)

Proposed Quantities of Waste to be accepted at Clean (Irl) Refuse & Recycling Ltd household and non-household is as follows:

Brown waste (Household)	7500 tonnes
Dry Recyclables (Household)	7000 tonnes
Domestic MSW	14000 tonnes
Wetwaste & Dry Recyclables (Non-household)	10000 tonnes
End of Life Vehicles(Household & Non-Household)	2600 tonnes
Brown Waste (Non-Household)	6000 tonnes
C&D waste (Non-Household)	17500 tonnes

The proposed waste type may be represented as follows:



(h) Raw Materials

The raw materials used at the site are limited to hydrocarbons:

- Motor Diesel
- Agricultural·Motor·Diesel·
- Hydraulic Oil
- Engine Oil

(i) Plant, Processes and Operating Procedures

Existing Development

The main existing waste activities on site include:

- Mechanical treatment of mixed recyclable waste
- Mechanical treatment of mixed residual waste
- Mechanical treatment of C&D waste
- Timber Shredding

These activities are carried out in areas within the processing buildings and the yard areas. The areas consist of:

- Dry recyclable processing area
- Wet waste processing area
- Baling of material area
- Dropdown skip processing area
- Timber shredding processing area
- Construction and Demolition waste processing area

Storage of waste on site is conducted according to the conditions set out in the existing Waste Permit 002/07/WPT/CL (Condition 4.11) where it is stipulated that temporary storage of all waste with a putrescible component shall not be stored on site for more than 72 hours. There is a limit of 3 months set for the temporary storage of dry recyclables.

All mixed residual waste (including compostable waste) and dry recyclables (including segregated recyclables) is stored in the designated processing buildings. C&D waste is stored adjacent to the trommel on hardcore at the rear of the west end of the processing building, additional stockpiles may be temporarily stored at the southeast perimeter. Timber waste is stored at the rear of the east end of the processing building. Neither stockpile is currently covered or ring fenced. Glass is stored in three glass bunkers at the rear of the site in front of the bin storage area and is roofed to prevent contact between the waste glass and rain during rainfall events.

The facility processes non-hazardous waste only. All waste arriving at the site is subject to a visual inspection. Any waste deemed unsuitable for processing at the facility is immediately separated and directed to the quarantine area. The waste is stored under appropriate conditions to prevent odour generation, or the attraction of vermin. Occasionally hazardous waste may be included in skips (e.g. lead batteries, WEEE, fluorescent tubes) and these are transferred for further processing or disposal to approved waste brokers under their assigned European Waste Catalogue (EWC) codes.

Several processes on site are carried out at the facility which use both mechanically and manually means to sort the waste. Picking line areas consist of a conveyor belt through which the waste stream will pass at a speed that will allow the employees to remove recyclable material.

Technology and equipment associated with, but not limited to, the waste processing include:

- Feed conveyor to transport waste at variable speeds through the various treatment processes,
- Ballistic separator to separate dry recyclable material such as plastics, pams (paper and magazines), cardboard and Tetrapaks into different units,
- Magnets to extract all ferrous items from the waste stream,
- Eddy currents to extract all non-ferrous items out of the waste stream,

- Balers to create compact units of a pre-determined size,
- Compactors squash and contain waste for disposal off-site,
- Trommel rotates C&D waste to remove fines,
- Timber shredder shreds wood for reuse.

Proposed Development

Biostabilisation Plant

Clean (Irl) Refuse & Recycling Ltd. is proposing to build and operate a state-of-the-art, totally enclosed facility to convert up to 15,000 tonnes per year of biodegradable materials found in the residential and commercial waste streams into fully stable and marketable soil amendment products. This facility will utilise proven, best available control technologies and best management practices for processing biodegradable waste materials, such as landscape materials, food, wood and non-recyclable paper, into valuable soil enhancing products while minimising any potential impacts to the environment or nuisances to neighbours.

The process to be employed begins with the receiving of feedstock materials within an enclosed tipping area. Here materials are blended together to attain the proper balance of nutrients, moisture and porosity (air space within the mix) in order to optimise aerobic (in the presence of oxygen) microbial decomposition resulting in the production of water vapour, carbon dioxide and a humus like compost product. This is opposed to anaerobic (in the absence of oxygen) microbial decomposition that commonly takes place deep within landfills and leads to the generation of methane and foul odours. Once blended, the feedstock materials are loaded into fully enclosed concrete tunnels. Aeration within the tunnels is controlled by computer to attain and maintain temperatures of 60-70°C. These temperatures kill all potentially harmful plant pathogens and animal diseases in accordance with the European and Irish Animal By-Products Regulations to protect human health and Ireland's robust livestock industry.

After 10-14 days of in-vessel processing, the materials are unloaded from the tunnels and taken into a fully enclosed building where the materials are stabilised under aerobic conditions for another 6-8 weeks. After this curing period, the materials are screened to harvest the soil amendment compost product while the oversized undecomposed materials are returned to the beginning of the process and used as a bulking material in new batches of feedstocks.

Since the facility is totally enclosed, potential environmental impacts can be managed and controlled so that there will be negligible impact on the environment and nuisances can be minimised for surrounding neighbours and the community at large. All process and building air will be collected and treated to eliminate offensive odours and dust from migrating off-site. Similarly any liquids generated in the tipping area or within the tunnels or curing areas will be collected and reused in the process. This eliminates any potential pollution of ground water or surface water sources under, on or near the facility. Noise is also limited as all activities will take

place indoors. Finally, the enclosed nature of the facility restricts access to pests such as rodents, birds or insects so pest control measures within the facility can be effective in eliminating pest infestations or problems.

Provision to End of Life Vehicle unit

This process will involve depolluting the vehicle prior to disassembling the body of the vehicle. All parts will be recycled by incorporating the material into the existing segregation process at the facility. Independent bunding will be put in place for the storage of oil filters, engine oils, lead acid batteries and engine parts retaining grease or other hydrocarbons. Scrap metals will be removed to designated scrap metal area at the facility.

Wheelie bin/truck wash

A wheelie bin/truck wash area will be situated at the north east perimeter along with a leachate holding tank for washing of waste away from wheelie bins and trucks. The activity will be fully contained and will not have the potential to contaminate surface water on site.

Wheel wash

A wheel wash will be introduced to the site to ensure that no waste is transferred across the site hardstanded surface or on external roads.

Biomass recovery (electricity production)

A small on-site biomass renewable energy generation system to produce all or part of the electricity and heat needed to operate the expanded Clean Ireland facility is proposed. The gasification system takes super clean and dry wood that the site is currently producing and coverts it into a Hydrogen rich "syngas" that fuels an engine/generator. It simply substitutes a carbon neutral renewable energy system for the non-renewable diesel one currently being used on site.

Skip storage

The storage area will be located in the extended area to the north of the site which is currently not within the site boundary. The area will be primarily used to store empty skips and will be hardstanded in the two phases. It is estimated that the area will be able to store up to 50 skips. Skip trucks entering the storage area will be infrequent and screening will be put in place.

(j) Regarding Paragraphs (a) to (i) of section 40 (4) of the Waste Management Act (as amended by the Protection of the Environmental Act 2003)

Once? The facility meets the requirements of the waste management act, an ELRA and CRAMP will be carried out subsequent to the application. Information submitted in the waste licence application and the accompanying EIS support this requirement.

(K) Emissions from the Site

Air

There are no existing main emissions from the site, dust deposition is currently monitored. The proposed air emissions for the site include:

Main emissions:	Biofilter Biomass Recovery Plant.
Minor Emissions:	Diesel Generator Domestic Woodchip burner
Fugitive emissions:	Dust Odour

Noise

Noise generated from existing and proposed sources during the operation of the facility from waste activities may arise from the following operations;

- Ballistic Separator
- Tipping of Waste
- Baler
- Skip contact with surface
- Timber shredder
- Trommel
- Shredders, front end loaders
- HGV delivery, Baling of scrap metal
- Engine
- Transfer of skips
- Forklifts, plant, waste vehicles
- Private vehicles

Biannual noise monitoring is currently conducted at four boundary locations and one sensitive noise sensitive location.

Surface Water

Emissions to surface water arise from stormwater generation at the site. Routine monitoring is in place for the existing surface water emission points SW1 and SW2. These emission points and monitoring locations, will be retained as the proposed emission points SW1 and SW2 for this application. All leachate generated on-site will be captured in two leachate storage tanks in the tipping and curing building and contents will either be re-used for the composting process or be tankered off site as required and disposed of with an approved waste contractor.

Groundwater

Emission to groundwater arise from the discharge from the wastewater treatment system to the percolation area. The existing groundwater emission point GW1 will be retained as the proposed emission point GW1 for this application. Only domestic wastewater is treated in the system. The emissions are currently monitored on a biannual basis.

(l) Effects of Emissions

The impacts of emissions to environmental media have been addressed in detail in Section 3.0 of the EIS. In conclusion, the impacts on the environment will be minimised with the implementation of described mitigation measures.

(m) Monitoring and Sampling Points

The monitoring and sampling points for surface water, groundwater, dust and noise will remain similar to existing locations. It is not possible to assign monitoring and sampling points to the two main air emissions for the biofilter and biomass recovery plant stack as the infrastructure will be constructed initially and the information will be submitted to the agency when final arrangements are made for these locations.

(n) Arrangements for Waste Arising from Activity

Waste generated on site will include

- Waste oils
- Interceptor sludge/silt
- Leachate

(o) Arrangements for Off-Site Treatment or Disposal of Wastes

Wastes will be disposed of with approved waste contractors as required.

(p) Unauthorised or Unexpected Emissions

An Emergency Response Procedure for the facility operation addresses unexpected events and emissions such as odour/dust emissions to air, noise or emission to water and other eventualities e.g. oil spill or plant breakdown.

(r) Not Applicable

(s) European communities (Control of Major Accident Hazards Involving Dangerous Substances) Regulation 2000

Not Applicable

(t) Geological & hydrogeological nature of the land

According to the Geological Survey of Ireland (GSI), the aquifer classification is given as locally important bedrock aquifer which is generally moderately productive only in local zones. Groundwater quality beneath the site is generally clean and free from contamination. Groundwater is used at the facility and locally as a means of domestic water supply as there is no mains water servicing the area. It is assumed that houses have individual private wells for domestic usage or avail of the Drumehilly Group water Scheme. Groundwater vulnerability is classified by the GSI as high to extreme. The site is covered by hardstanding areas which provide protection to the underlying groundwaters.

Groundwater abstractions on-site are minimal and are considered similar to that of a small farm and domestic residences, water requirements for the composting process and biomass recovery plant will be met for the most part by harvesting roof water in three 30m^3 tankers located adjacent to this plant. These low abstraction rates will not be significantly increased and are not considered to have a negative impact on the underlying aquifer.