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## ATTACHMENT A

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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.

For clarity, the paragraph numbering is in accordance with the numbering of Article 12(1), (a) to (t).

(a) *General Details*

Waterford City Council,  
Planning, Culture and HR,  
Wallace House,  
Maritana Gate,  
Canada Street,  
Waterford City

Tel: 051 309900  
Fax: 051 849701

(b) *Planning Authority*

The development is at a site in the functional area of Waterford County Council.

Planning, Culture and HR,  
Wallace House,  
Maritana Gate,  
Canada Street,  
Waterford City.

(c) *Sanitary Authority*

No trade effluent or other matter will be discharged to sewer other than domestic sewage and storm water.

(d) *Location*

The facility is located in the townland of Ballybeg, Waterford, Co. Waterford. The address is Waterford City Council Composting Facility, Green Road, Waterford. The National Grid reference for the site is:

E 2582      N 1096

The site location is shown on 2006-289-01-Figure B.2.1 Rev A, see Attachment B.2.

*(e) Nature of the Development*

This waste licence application is being made on behalf of Waterford City Council in respect of Waterford City Composting Facility, Green Road, an existing facility. It is located approximately 5 km from Waterford City. The site location is shown on 2006-289-01-Figure B.2.1 Rev A, see Attachment B.2.

The facility entrance is on Green Road which is accessed from the new Link Road or the N25 Waterford to Cork Road. This road is a cul-de-sac and is used only by vehicles accessing the Composting Facility and the adjacent Waste Transfer Station. The site is industrially zoned and is adjacent to an industrial estate, Six Cross Roads Business Park.

The facility accepts separately collected organic waste from the household and commercial sectors and green waste from householders, landscapers and the Parks Department of the City and County Councils. The waste material is digested to produce a high quality compost product that is sold as a soil improver. The facility operates near full capacity, processing 9,000 tpa. The application seeks a waste licence for the existing operations with approval in principal to extend the capacity of the facility to 20,000 tpa.

The existing process is summarised as follows:

- Waste reception (organic and green waste)
- Shredding of green waste
- Tipping and mixing
- Digestion in 20. no digester units
- Maturation on Aerated Static Piles (ASPs)
- Screening of compost
- Storage of compost

It is anticipated that the proposed process will follow the same principles of composting. It is planned to construct a composting building incorporating in-tunnel aerobic digestion, maturation on ASP pads and screening. See Attachment D.2 for details of facility operation.

*(f) Classes of Activity*

The classes of activity applied for are as set out in the Third and Fourth Schedules of the Waste Management Acts 1996 to 2005:

**Third Schedule – Waste Disposal Activities**

**Class 7:** Physico-chemical treatment not referred to elsewhere in this Schedule which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1 to 5 or paragraphs 8 to 10 of this Schedule (including evaporation, drying and calcination).

**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 processes).

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 such waste is produced.

The principal activity proposed is Class 2 of the Fourth Schedule as given above. For a brief technical description of each of the activities specified, see Attachment B.7.

(g) *Quantity and Nature of Waste*

The proposed extension to the existing operations will increase the annual tonnage for recovery from 9,000 tpa to 20,000 tpa. The proposed quantities are shown in Table A.1 in tonnes per annum (tpa).

**Table A.1: Quantity and Nature of Waste**

Waste Type	Existing Throughput (tonnes/annum)	Proposed Throughput (tonnes/annum)	EWG Code
Household organic waste	6,750	15,000	20 01 08
Commercial organic waste			20 01 25
Green Waste	2,250	5,000	20 02 01
<b>Total</b>	<b>9,000</b>	<b>20,000</b>	

See Attachment H.1 for further details on the quantity and nature of waste.

(h) *Raw Materials*

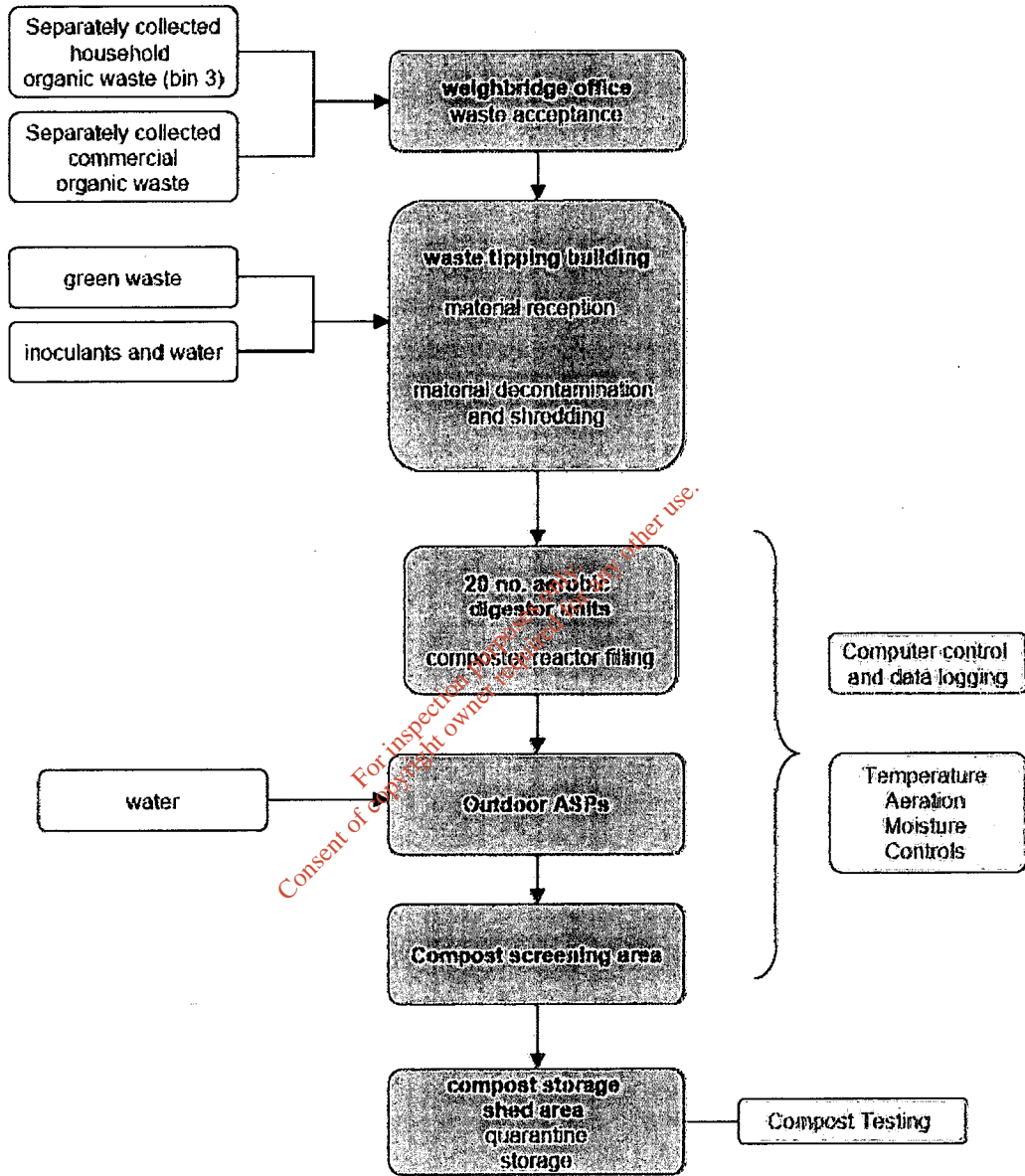
Table A.2 lists the quantities of raw materials and energy utilised at the existing facility.

**Table A.2: Raw Material Consumption per Annum – Composting Facility**

Resource	Quantities
Diesel Oil	14 m <sup>3</sup>
Lubricant Oil	0.15 m <sup>3</sup>
Coolant/Antifreeze	0.15 m <sup>3</sup>
Electricity	600 kW
Water	21,250 m <sup>3</sup>
Urea	2,000 kg
Cleaning Chemicals	0.20 m <sup>3</sup>
Insect repellent	Fendona
Rat bait -	Klerat or Contrac
	50 kg

(i) Plant, Processes and Operating Procedures

Figure A.1: Unit Processes at Kilbarry Composting Facility



## Existing Unit Operations

Drawing Number 2006-289-01-101 Rev A, Appendix 1 shows a plan of the site that indicates all existing activities, buildings and facilities. A flow diagram of the process is included as Figure A.1.

The existing Unit Operations at the facility are listed as follows:

- Waste Acceptance
- Material Reception
- Material Decontamination and Shredding
- Mixing with Amendment Material
- Loading into Compost Reactor Vessels
- Outdoor Static Pile Aeration
- Screening and Storage
- Compost Sampling

### *Waste Acceptance and Material Reception and Decontamination*

Waste is accepted at the facility in accordance with the Waste Acceptance Procedures, see Attachment H.2. Waste is delivered to Waterford Composting Facility as green waste and organic waste.

Householders, landscaping contractors and the City and County Council Parks Departments use the facility to drop off green waste and collect compost.

Separately collected organic waste is accepted from the City Council and County Council collections. A private contractor delivers commercial source separated organics to the facility. Following tipping, all waste is visually checked for contamination. Large objects are manually removed. The protocol for the facility is for the enclosure of the wet organics within the composting digesters within 24 hours of arrival to avoid vermin, odour and leachate issues.

Material is transferred from the tipping floor into the mixer using a low loader. It is tipped directly into the mixer. Amendment material (shredded green waste) is added to the mixer between loads of organic material.

### *Mixing*

An auger mixer is used to shred and blend materials for composting. During the shredding process, additional bulking materials, inoculants and water are added to ensure that the subsequent biomass will effectively heat when air is introduced.

At the end of the blending process, the moisture of the blend is checked and if necessary water is added. This process is a vital stage in the process as it allows the material to be adjusted for moisture, nutrient ratio, microbial activity and porosity to ensure effective subsequent heating and optimal composting. This process is also an odour prevention technique as correctly blended material will be less likely to become anaerobic and odorous.

## Loading into Compost Reactors

There are 20 no. in-vessel digester units. The blended "pre-compost" is transferred to the in-vessel digesters by a conveyor attached directly to the auger mixer. The conveyor helps break up any clumps of material and forms a homogenous well-structured compost pile within the container.

### *The Compost Reactor*

The in-vessel composting system:

- is a closed composting reactor, which cannot be by-passed, i.e. it is a completely sealed
- has installations for monitoring temperature against time
- has an adequate safety system to prevent against insufficient heating

The containerised system at Waterford City Composting Facility utilises 30 cubic meter roll-off compatible containers as composting vessels. The vessels contain a false perforated floor which allows air to be introduced into the bottom of the vessels. This also allows any liquids to be collected under the false floor without interfering with the aeration system. The bottom floor of the vessel is graded to a drain away from the door. A valve is opened daily to allow leachate to drain out for collection.

Forced air allows aerobic conditions to prevail, which encourages the growth of thermophilic microbes.

The process control system consists of the following components:

- industrial programmable logic controller (PLC)
- variable frequency drives for the blowers
- pressure, air flow and/or oxygen sensors
- personal computer with printer, ups and modem
- windows operating system software
- process control software
- pile logistics software

### *Static Pile Aeration*

The Aerated Static Pile (ASP) Modules are the second composting barrier. They are located as shown on Drawing Number 2006-289-01-101 Rev A, see Appendix 1.

This second phase of composting occurs within four outdoor ASP bunkers with three pile turns over a 7-8 week period.

The ASP process has been adopted for the second composting barrier as the method to inhibit the re-growth of pathogens (typically facultative anaerobic bacteria) under aerobic conditions.

The facility currently operates by combining the contents of six containers into one primary pile. Piles are turned regularly. Polyethylene pipes are buried in a concrete slab with upright pipes that are level with the curing pad floor. Air is drawn downward through the curing pile and exhausted through a separate bio-filter. This negative aeration process maintains the aerobic conditions needed for effective curing while further reducing the potential for odour. The material is typically maintained on the aerated pavement for six to eight weeks prior to screening.

#### *Screening and Storage*

After 9-10 weeks in the process, when the materials are cured, they can be moved to the storage area for screening.

A trommel screen is used for this process.

Oversized un-decomposed materials or inert contaminants fall out of the lower end of the rotating cylinder into a pile. Depending of the level of contamination, this larger fraction can be disposed of to an appropriate facility if it is highly contaminated. If contamination is low, the oversized materials, mostly un-decomposed wood chip are reused in new batches of compost as an inoculant and structural material to add porosity.

Once the compost is screened, it is stored for a minimum of 21 days while pathogen tests are carried out. Following testing it is stored on site until it is sold or used by Waterford City Council.

#### *Compost Sampling*

Currently compost sampling is carried out to provide documentary evidence of the pathogen reduction efficiency of the in-vessel/ASP 'twin barrier' technology for the Animal By-Products (ABP) application.

When operating at full capacity and filling two digesters per day, 10 digesters are filled per week and consequently 10 digesters are emptied per week. These 10 digesters fill two zones on the curing pad. After 2 no. weeks, these two zones are turned and allowed to mature for another 2 no. weeks. At the end of the eight week curing stage, there are 10 digesters of material ready for screening. As each digester holds approximately 18 tonnes of material, a batch represents approximately 180 tonnes of raw bio-waste. It has been observed that the bio-waste loses approximately 50% of its weight during the in-vessel and curing processes, giving approximately 90 tonnes of material before screening.

Typically screened material will give a 50/50 return of finished compost to oversized material that will be retained by the screen, giving between 40 and 50 tonnes of finished compost for ten initial digesters of bio-waste. Therefore each week a batch is screened to produce 40 – 50 tonnes of compost.

The finished compost is kept quarantined from any existing compost in the storage building until analysis results are received from the testing laboratory. This process normally takes two to three weeks. During this time, the material is agitated weekly to ensure any residual microbial activity has adequate oxygen to finish its life cycle.

When sampling, three sub-samples of approximately 5kgs each are taken from three different locations in the pile and are combined to make one sample of 15 kgs which is required by the testing laboratory. The samples are taken using a dedicated stainless steel shovel and placed into a clean black sack. It is then placed into a cooler box with cooling blocks and couriered to the testing laboratory overnight. The sampling shovel is disinfected between sampling events and all reasonable precautions are taken to avoid cross contamination.

Analysis of compost is carried out for the following parameters:

- Salmonella Sp: absence in 25g
- E. Coli <1,000 c.f.u/g
- Maturity tests
- Self Heating C
- pH
- Ammonia mg/l
- Nitrate mg/l
- Heavy Metals
- H<sub>2</sub>O %
- Contamination (plastics, metals etc.)

These are based on Department of Agriculture recommendations.

#### *Proposed Operations*

It is proposed to extend the facility to increase the throughput capacity to 20,000 tpa. Proposed operational details will be forwarded to the Agency with the Specified Engineering Works (SEW) Report for approval to commence construction.

The existing facility with 20 no. digester units does not have the capacity to treat the quantities of bio-waste that are predicted to be generated in the future, following the implementation of a 3-bin collection system across the South East Region to achieve the targets (diversion of bio-waste from landfill) set out in the National Strategy on Biodegradable Waste.

For this reason it is proposed to make some adjustments to the existing process. The proposed extension plan for the facility involves the installation of in-vessel tunnels and a composting building. This proposed layout is shown on Drawing Number 2006-289-01-104 Rev A, see Appendix 1.

The tunnel in-vessel systems can be large immobile containers or fixed concrete "tunnels." They will be loaded and unloaded by a front-end loader. Waste material will be moved from the tipping hall (following mixing in the auger) into a tunnel reactor and emptied out into the composting building onto an aerated slab. 2 no. dedicated front-end loaders will be used for loading and unloading, one dedicated to the tipping hall area (and raw waste), the other to the composting building (1<sup>st</sup> phase digested waste).



The tunnels will be sized to accommodate the daily volume of materials to be processed by the facility. The tunnel system comes with a sophisticated process control system using both temperature and oxygen feedback systems to control aeration within the tunnels.

The mobile compost reactors will be retained on site for additional capacity at peak times.

The compost building will contain indoor ASP pads working on the same principal as above. Following the indoor stage, the material will be transferred to the existing outdoor pads for completion of the composting process. The material will be transferred into the compost building for screening before being placed in the compost storage shed. It is proposed to install an air extraction system in the composting building to mitigate potential odour, dust and noise impacts that may arise due to the intensification of activities on site.

Monitoring of the compost will be carried out in accordance the Waste Licence.

(j) *Regarding Paragraphs (a) to (g) of Section 40 (4) of the Waste Management Act*

The information contained within the waste licence application form and its attachments shows that the facility meets the above requirements of this Act.

(k) *Emissions from the Site*

Attachment E contains further details of emissions from the site. The following emissions are discussed in brief:

- Air
  - Dust
  - Odour
- Surface Water
- Sewer Discharge
- Groundwater
- Noise
- Environmental Nuisance

## **Emissions to Air**

### *Dust Emissions*

There is potential for dust emissions from the composting process at the existing facility. Mitigation measures are employed from the following processes:

- Tipping
- Mixing
- Shredding
- Turning
- Screening and general site operations

Tipping, sorting and mixing take place within the material reception building. Material on the ASP pads is turned only during favourable wind conditions. The material is sprayed during turning to add necessary moisture, but which also acts to prevent dust generation from the pile.

Shredding and screening takes place within the confines of the compost storage shed and are carried out during favourable wind conditions.

Dust due to road traffic is not a significant impact; road wetting is used to mitigate windblown dust due to traffic in very dry weather conditions. There is a wheel wash at the exit of the material reception building. All roads are hardstanding. Dust monitoring is carried out to record dust levels at three locations on site. The material reception building is washed down at the end of daily operations. General housekeeping practices ensure any waste spills are cleaned up immediately.

It is proposed to construct a composting building on site and to move the digestion phase and curing phase indoors. The composting building and material reception building will be fitted with an air extraction system. Screening will take place within the building. Air will be drawn from the tunnels and building through biofilters to remove dust from exhaust air.

Operating under a negative pressure within an enclosed environment will mitigate potential impacts from dust and will facilitate turning of the material on the ASP pads and screening regardless of wind conditions.

#### *Odour Emissions*

There are potential odour impacts from the composting process. The impacts could potentially arise from material acceptance, mixing, turning, screening and digestion.

Mitigation measures in place include the provision of 4 no. odour control units; 2 no. in the material reception building, 1 no. in the marshalling yard and 1 no. above the digester pads.

Material reception and mixing takes place within the material reception building. In the past odour impacts arose due to a wind tunnel effect through the 2 operational doors. The odour control units were installed. There have been no odour complaints since the units were installed. It is proposed to keep the second door shut.

Raw organic waste is delivered and tipped onto the floor of the material reception building. The aim of the process is to move that material as soon as possible into digester units. The material reception building is cleaned at the end of the day's operation, floors, walls and machinery.

The digestion phase is a fully sealed system.

Turning of material on the ASP pads is carried out in favourable wind conditions to mitigate potential odour generation. The material is moistened on turning.

It is proposed to construct a composting building and in-tunnel digestors.

Material reception, mixing, digestion, turning and screening will take place within an enclosed building with negative air extraction. The exhaust air will be filtered to remove dust and odour particles. Details of the proposed system will be forwarded to the EPA as a SEW for approval.

#### Emissions to Surface Water

The activities and processes to be conducted or that are likely to occur, at the site that could potentially impact upon surface water are as follows:

- generation of surface water run-off from hardstanding areas and roofs
- generation of leachate on site
- storage of hydrocarbons on site
- generation of sewage from canteen and hygiene facilities

The measures proposed include avoidance, reduction and mitigation and include:

All surface water run-off from hardstanding areas and roofs will be collected and directed to sewer.

Hydrocarbons are not stored on site currently but it is proposed to install fuel tanks within a fully enclosed bunded area in the near future. The fuel will be used to re-fuel site machinery.

Leachate generation will be kept to a minimum, all waste handling activities, unloading, storage and processing are carried out under cover so rainfall does not result in leachate generation. The only activity that is carried out outdoors which generates leachate is the maturation pads (ASPs). This area is kerbed off to contain leachate within that zone. All leachate will be collected and directed to a leachate storage tank for tankering off site to an appropriate facility.

Woodchip is spread on the floor prior to tipping of commercial bio-waste to soak up excess leachate. The material reception building floor is cleaned at the end of each day and all washdown is collected as leachate. All sewage generated on site will be directed to sewer.

Leachate will continually be generated at the site and hydrocarbons will be stored at the site. These present a risk to surface water quality, however with the storage and handling precautions, the risk to surface water quality is negligible.

It is not expected that the surface water management system will be altered due to the proposed changes to the process and facility. Clean surface water will be collected from roofs and directed to sewer. Storm water will be collected from the marshalling yard and directed to sewer. Leachate will be collected from the material reception building, tunnels and composting building and stored on site for reuse in tunnels or/and for tankering to an appropriate treatment facility. Consideration will be given to the pre-treatment of leachate on site for the re-circulation or export off-site for disposal at an appropriate treatment facility.

### Emissions to Sewer

Stormwater, clean surface water and sewerage are discharged from the site to sewer.

### Groundwater

There are no emissions to groundwater.

### Noise

Noise monitoring was carried out in January 2006. The following is a brief conclusion of the sampling and interpretation.

Night time noise levels were slightly elevated on the eastern site boundary, due to a faulty composting vessel on-site and at the noise location south east of the site. The noise was due to traffic near the monitoring point. No noise was audible to the sampling personnel, from the facility at the point.

Although the daytime noise levels determined at N1 (southern site boundary) were slightly elevated due to operational noise at the composting facility, it is unlikely that the noise levels recorded at the site would give rise to nuisance at noise sensitive locations in the area or the adjacent facilities. The noise levels recorded at the noise sensitive location exceeded levels recorded at the site during both daytime and night time monitoring and were not influenced by activities at the compost site.

The composting process does have the potential to generate noise from the following sources:

The composting process is a 24 hour operation. During night-time hours (22.00-08.00) (in the normal operational phase), digestion is the only activity carried out, therefore the potential noise impact are the blowers.

Since December 2005, some operations have been carried out at night (screening and turning piles). These hours are 4.30pm to 11.00pm, as required, from Monday to Friday. It is expected that once the facility is extended to incorporate indoor composting operations, odours will be significantly reduced and will result in less need for night time operations. The increased number of buildings on the site will also act to absorb sound.

During day-time hours the noise sources associated with the operation of the facility include:

- deliveries of material to the site for treatment
- shredding of green waste
- loading of waste within the reception hall
- transfer of waste material via the mixer to a digester unit
- movement of digestors on site
- aeration system
- unloading of digestors to ASPs
- turning of material on ASPs
- screening of compost
- collection of final product from the site

The operating hours are such that the majority of activities that have the potential to cause noise are carried out within day time hours.

Noise from engines (of delivery trucks, low loaders, turners, shredder and screener) and reversing siren noise are the most significant potential impacts.

Noise monitoring did not record any significant noise levels from plant machinery. This plant machinery operates within a cordon of buildings to the south, east and west. They help mitigate potential noise impacts.

The digester units (20 no.) at this site operate on a 24-hour basis. The compost process requires air to be drawn through the digester. The air fans that move the air are a potential noise source. No elevated noise levels were recorded from the blowers. Regular inspection and maintenance of the blowers is carried out to ensure good working order. Noise monitoring is carried out to check such noise sources. As part of the waste licence, noise monitoring will be carried out on a more regular basis.

#### Proposed Operations

It is proposed to extend the facility. The proposed potential impacts from this are the construction phase noise and intensification of existing activities.

During the construction phase there may be short-term, temporary noise level increases. To mitigate the impacts of construction noise the site will implement normal construction management practices to manage noise. Working hours will be limited to daytime during weekdays and Saturdays. All night-time, Sunday, and Bank Holiday working will be avoided, except in emergency situations.

During the proposed operational phase, noise levels will consist of static equipment related noise, truck noise and mobile plant related noise. The noise associated with the increased heavy goods vehicles and traffic associated with the site will be imperceptible in the context of the existing traffic levels on the road. The increase in traffic will be minor and will not contribute significantly to traffic noise. The majority of site activities will take place indoors for the proposed operation. The building will mitigate operational noise. All site machinery will be procured with regard to noise impacts.

Noise monitoring will be carried out in accordance with the waste licence requirements and levels recorded will be required to meet the waste licence limit requirements at the noise monitoring locations. In the event that noise levels are exceeded, an explanation will be put forward with mitigation measures.

#### Environmental Nuisance

Controls have been put in place for the following nuisances:

##### *Vermin Control*

As a precautionary measure, there is pest control on site. The site is inspected monthly and a number of bait points have been set up internal and external to the facility. There is a 1-2 working day follow up upon discovery of infestation until two clear site visits have been recorded.

##### *Flying Insect Control*

All internal walls from a height of 2 m to ceiling height are sprayed with Fendona or Quapy with a motorised blower 6 times per annum.

##### *Birds*

Birds are not a nuisance at the facility but precautions are taken to prevent it. Raw material is received indoors; the nature of the material on the ASPs is not attractive to birds.

In addition, all vehicles entering the site with bio-waste are either fully enclosed RCVs or are completely covered. This minimises the potential for birds scavenging on site.

##### *Litter*

Litter is not a problem at the site due to the nature of the waste delivered to the site and the fact that it arrives in enclosed or covered refuse collection vehicles. In addition unloading and mixing of incoming raw waste is carried out within the material reception building.

As a precaution, regular litter patrols of the site perimeter and access road will be undertaken.

### *Fire Control*

In general, fires are prevented by operating best practice including:

- Inspection of loads at the weighbridge
- Control of loads to ensure no burning or smouldering loads enter the facility
- Designation of smoking/non smoking areas
- Security
- Staff training in fire prevention and control
- The provision for fire extinguishers and fire hydrants at key locations throughout the site which are checked regularly
- Sufficient clearing to allow the fire brigade clean access to all buildings, site infrastructure and areas of the site

### *Traffic in the Existing Environment*

Traffic is not an issue at the site.

The Green Road services only one other facility, the adjacent WTS. It has significantly higher volumes of traffic than the compost facility.

There is potential for spoiling of the road by waste. The likelihood of this occurring is extremely low as all commercial vehicles delivering waste to the facility are fully enclosed or covered.

Only approved vehicles are permitted to enter the compost facility.

At a maximum capacity of 20,000 tpa, the traffic movements will be approximately 10% of the traffic volume on Green Road. Veolia Environmental Ltd. has a waste licence (Register Number W0177-03) for the operation of the adjacent WTS. The licence permits the processing of 80,000 tpa. The majority of traffic on the road (90%) will be bound for the WTS. The impact of traffic from the compost facility will be negligible.

### *Road Cleansing*

The entire site is hardstanding including the internal floors of the buildings. Vehicles arrive at the facility via the public network. All delivery vehicles wheels are power washed before exiting the materials reception hall. Road cleaning control measures are not required at this facility. Internal road sweeping are employed as part of general housekeeping measures as required.

(l) *Effects of Emissions*

The effects of the any emissions from the development are discussed in Attachment E of this document. The facility has been designed to minimise the emission of pollutants and operational procedures will be implemented to reinforce these design features.

(m) *Monitoring and Sampling Points*

A complete and comprehensive regime of regular environmental monitoring will be carried out at the site in accordance with the requirements of the waste licence.

The monitoring locations map is shown as Figure E.1.

All monitoring shall be carried out according to established procedures, approved by the Agency.

Annual reports containing details of environmental monitoring will be prepared and presented to the Agency.

(n) *Arrangements for Waste Arising from Activity*

The composting process is a recovery process. 9,000 tpa of separately collected organic waste and green waste is recovered as approximately 2,600 tpa of compost that is sold as a soil improver. The majority of the mass of material is lost as moisture. Approximately 2,500 tpa of oversized items is generated by the process. These include items that aren't degraded by the process, plastics, metals etc. overs are transported off-site for disposal at an appropriate facility.

The operators are currently investigating technology that will further screen and sort overs to reduce the quantity of waste from the process.

It is anticipated that 5,000 tpa of overs could be generated once the facility is extended. However, new technology combined with standards for landfill cover will reduce the quantities going for disposal.

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

A volume of overs will be generated at the facility which cannot be recovered. These will be stored suitably on site and transported off site disposal at an appropriate facility, or for re-use if possible.

Leachate is collected on site and stored in a leachate storage tank for tankering off site to an appropriate treatment facility. Sewage from the canteen and hygiene facilities is directed to sewer.



(p) *Unauthorised or Unexpected Emissions*

Staff will be present on site at all times during opening hours to supervise and carry out operations and to deal with any emergencies. Key staff will be on-call to respond to any emergency situation outside of normal working hours e.g. night-time and Sundays.

(q) *Closure and Restoration*

It is anticipated that the plant will be operated indefinitely. However if the facility should close for some unforeseen reason all waste and all equipment will be removed from the facility. Waste would be removed to authorised facilities. Equipment would be recycled where possible. The building where waste activities are proposed would remain and would likely be used again.

(r) - (t) *Landfilling of Waste or Dangerous Substances or Emissions to Aquifer*

These paragraphs are not relevant to the composting facility or the proposed extension.

(u) *Non-Technical Summary*

Refer to the information provided above that has been reported in accordance with paragraphs (a) to (t) of Article 12 (1) of the Waste Management (Licensing) Regulations, S.I. 395 of 2004, see Attachment A.1.

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