



Ms. Caroline Murphy
Inspector,
Environmental Licensing Programme
Office of Climate, Licensing and Resource Use,
Environmental Protection Agency,
PO Box 3000
Johnstown Castle Estate
Co. Wexford.

6th September 2013

Waste Licence Application Reg. No. W0284-01

Re: Notice in accordance with Article 14(2)(b)(ii) of the Waste Management (Licensing) Regulations as amended.

Dear Ms. Murphy,

Further to your letter of 15th August in respect of the above please note the response from O'Toole Composting detailed below.

ARTICLE 12 COMPLIANCE REQUIREMENTS

Municipal Solid Waste (MSW)

1. Describe the process flow for the treatment of MSW
A description of the process flow including a process flow diagram is attached. Please note that the SRF aspect of this activity is currently not taking place at the O'Toole Composting Facility but all material recovered from the current activity is being sent offsite for further processing.
2. State whether this process is an MBT process or a drying process.
O'Toole Composting Ltd. regard this process as an MBT process that incorporates drying. This is because drying is only part of a recovery process that includes recovery of metal, plastic, SRF and CLO (Compost Like Output).
3. State the outputs of the MSW treatment process and their intended end uses.
The outputs are Compost Like Output (CLO) which is used for landfill cover, metal and plastics which are recycled and SRF which is used as fuel in Cement Kilns. (See attached diagram)

4. Demonstrate the ability of both the current scrubber and biofilter, and the proposed odour control unit to adequately abate the emissions from the treatment of MSW.
The existing infrastructure is capable of abating all emissions from this process as is currently being demonstrated. The facility is accepting up to 500 tonnes per week and there are no odours. Regular checks of the biofilter medium is showing that there is no deterioration and there have been no incidents or complaints. The biofilter is only part of the odour management system which includes maintaining all doors closed and loads covered along with all other operating procedures. The new biofilter is designed for over 40,000 tonnes of biodegradable waste and as the odours in MSW are less concentrated than biodegradable waste it is fully expected to cope with this tonnage of MSW.
5. State how the leachate from the process is handled.
As this is a drying process there is no leachate generated other than what might come out of the delivery vehicle in the receiving hall. This is collected in a large underground tank and either introduced into the composting tunnels to be dried off or sent to the Waste Water Treatment Facility for treatment. To date it has been dried off as part of the process.

ARTICLE 13 COMPLIANCE REQUIREMENTS

1. State on what date the EIS was compiled.
The EIS was completed and compiled on 10th July 2012.
2. Please elaborate on the proposed MSW and gypsum processing systems in all relevant sections of the EIS to ensure that all relevant aspects of the plant are fully assessed in the EIS.
The proposed MSW processing systems are the same as proposed for composting and C&D waste. Specifically this includes the use of the already installed GICOM plant for drying and the existing shredding equipment. This is already addressed in the EIS and the potential impacts in particular odour and traffic are exactly the same. Further processing of this material on site is likely to include magnets, eddy-current plant and windshifter equipment. The specification of this has not been decided upon yet but it is not thought likely to have any material impact in respect of the EIS. However this plant and the possible gypsum processing plant will only be installed subject to an SEW approval from the Agency and any possible Environmental Impacts will be addressed at that stage.
3. State the impact from current and predicted activities on climate.
Climatological information for the O'Toole Composting Ltd. Site at Ballinrane, Fenagh Co. Carlow was obtained from the Meteorological Office website www.met.ie The



nearest weather station to this site is located in Kilkenny which is approximately 35 kilometers from the site.

30 year averages show the following relevant information:

1. The mean daily temperature is 9.3 degrees Celsius with a mean daily maximum of 13.4 degrees C and a mean daily minimum of 5.2 degrees C.
2. The mean annual rainfall is 822.8 mm
3. The mean monthly windspeed is 6.5 knots.

Given the above it is determined that the climate for the area of Ballinrane is regarded as normal with no exceptional values shown.

Carbon dioxide from the processing of biodegradable waste is not regarded as a net contributor to greenhouse gas emissions because the carbon had a short carbon cycle in other words it was stored in the biomass for a limited number of years as opposed to the hundreds of thousands of years for fossil fuels.

Similarly the processing of MSW and removal of all biodegradable waste from this waste stream will reduce the potential for methane generation should residual amounts of this material be landfilled prior to this treatment. This process therefore has a slightly positive impact on the climate.

Anaerobic Digestion of sewage sludges or biodegradable material and the production of electricity will have the double positive impact of preventing methane emissions from this material should it be landspread or landfilled and production of electricity which will feed into the grid and reduce the requirement for electricity from fossil fuels.

As the impacts of the current and future activities will have a positive impact on climate no mitigation measures are required.

Please find attached revised EIS and License non-technical summary to reflect any relevant changes.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Jim Dowdall', is written over a horizontal dashed line.

Jim Dowdall
Enviroguide Consulting

O'Toole Composting Ltd. MSW Process Description

The following describes the process by which MSW is processed at the O'Toole Composting Ltd. Facility at Fenagh Co. Carlow:

Incoming Municipal Solid Waste (MSW) is tipped in the Waste Reception building. Following inspection and acceptance an initial visual screening takes place and any unsuitable and unshreddable material is removed by means of grab machine.

The remaining waste is then shredded with a slow speed shredder. (Doppstadt W3060).The shredded material is then placed into the Gicom composting tunnels for up to 10 days. During this time it will be required to reach a temperature barrier of 60°C. It will then be transferred to another tunnel where it will also reach the same temperature barrier. The monitoring and management of this material being treated is exactly the same as described for the composting process. The process is computer controlled and all of the alarms are in place. The process will be managed in accordance with the previously described composting procedures.

This entire process is carried out indoors under the negative air control of the biofilter.

At the end of the composting process the material will be dry and all food waste will be degraded. The waste is then screened to 20mm which removes all the degraded food waste and any fine waste materials. This is the Compost Like Output. This CLO will be used for landfill cover.

The remaining oversize material from the screening process removed for further recovery. Currently this is not happening on site and the material is sent offsite to an approved recovery facility where the following processes take place:

Firstly it is passed through an overhead magnet to remove any ferrous metals. It then goes through a windshifter which is essentially an air separator that separates material based on their mass. The Windshifter produces 2 fractions, a heavy fraction and a light fraction. The light fraction (which contains) is then conveyed onto a picking line where it is manually sorted and non-shreddable material along with any hard plastics is removed. The remaining material is then fed to the SRF shredder

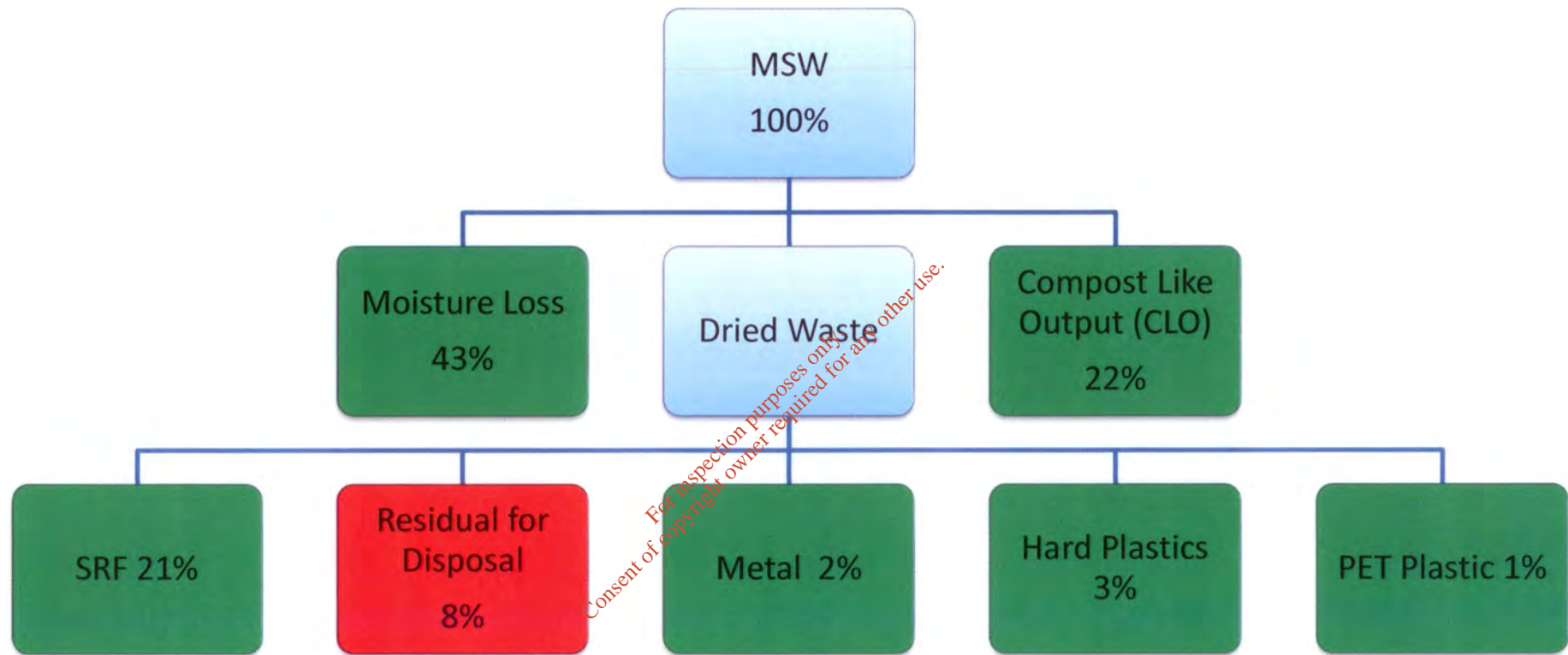
The heavy fraction from the Windshifter is conveyed onto another picking line where any material suitable for SRF is removed manually and sent to the SRF shredder. Any other recoverable material is also removed manually such as hard plastics etc.

Finally the remaining material (from the heavy fraction) is passed over an Eddy Current Separator to remove any non ferrous metal. The residual material at the end of the line will be landfilled.

It is hoped that these activities can be carried out on site at O'Toole Composting Ltd in the future subject to approval by the Agency.



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Red box is material that is sent for disposal.

Green Box is for material that is recovered.

O'TOOLE COMPOSTING LTD – WASTE RECOVERY BREAKDOWN

Attachment A

Non-technical Summary (Amended)

Attachments in this Section include:

A.1 Non-technical Summary (amended 7th September 2013 to include additional information provided to the EPA in response to Article 14 (2)(b)(ii) request dated 15th August 2013.

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Introduction

A non-technical summary has been prepared in accordance with Article 12(1)(u) of the Waste Management (Licensing) Regulations, S.I. 395 of 2004, as amended.

- a) An application for a Waste Licence is being made to the Environmental Protection Agency (EPA). The application is being made by

O'Toole Composting Limited,
Ballintrane,
Fenagh,
Co. Carlow.

Telephone: (059) 9148984
Fax: (059) 9148989

All correspondence relating to this application should be sent to:

Mr. Jim Dowdall
Enviroguide Consulting
93 Upper Georges Street
Dun Laoghaire
Co. Dublin

Telephone: (01) 2711896
Fax: (01) 2711897

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The registered office of O'Toole Composting Limited is Rathbawn, Tullow, Co. Carlow.

- b) O'Toole Composting Limited is in the Planning Authority functional area of:

Carlow County Council
County Buildings
Athy Road
Carlow Town
Co. Carlow

- c) There is no discharge of trade effluent or other matter to sewer from the facility. The sanitary authority area in which this facility is located is the HSE South, Carlow Community Care, Athy Road, Carlow Town, Co. Carlow.
- d) The facility is located in the townland of Ballintrane in Fenagh, Co. Carlow. The National Grid reference for the facility to which this application relates is S 7886 6762. The site which is 4.87 hectares in area is located in a rural area where the

predominant land use is for agriculture. The closest dwelling located 170 meters south of the facility.

The site itself is well serviced with road networks as can be seen in Figures 1 and 2 below. The site is located directly off the N80 Carlow/Rosslare Road, approximately 6km south east of the M9 Dublin/Waterford Motorway. The main entrance of the facility is located at the north west corner of the site, just off a local access road Jocks Lane, which runs perpendicular to the main N80 roadway. Sufficient sightlines are at either side of the access lane for safe access and egress to the facility.

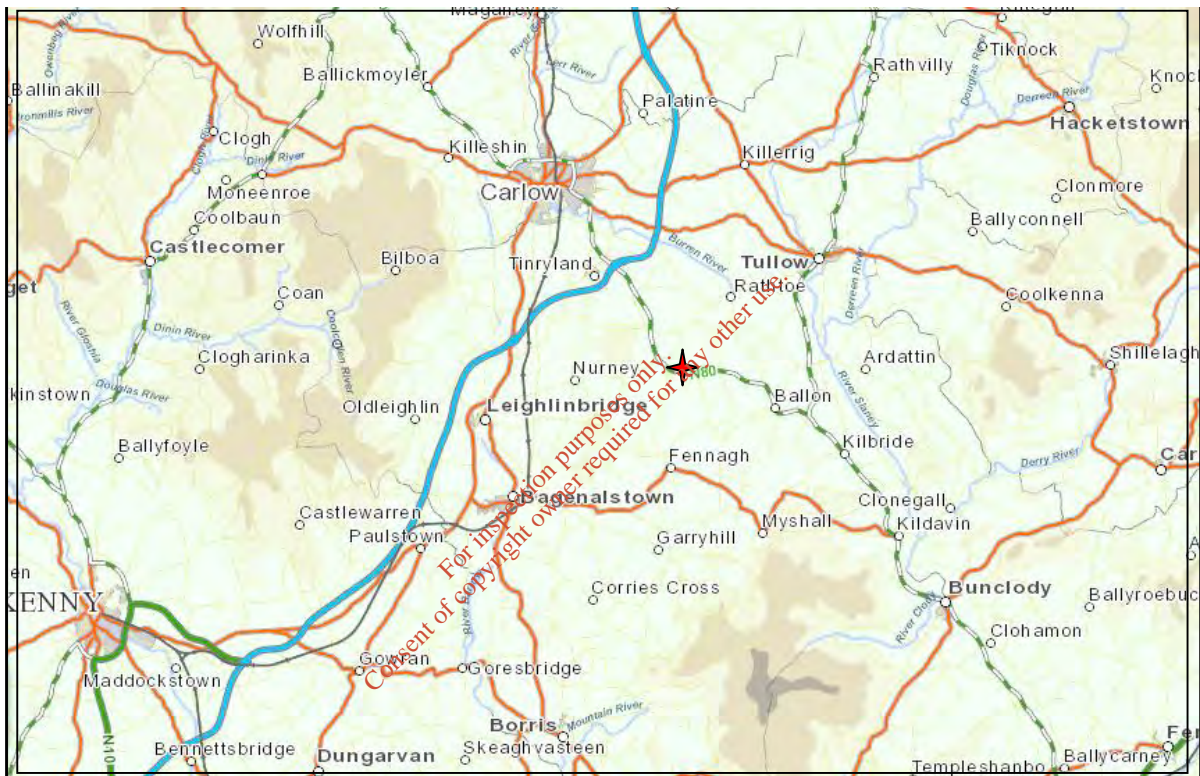


Figure 1: Detailed Site Location Map

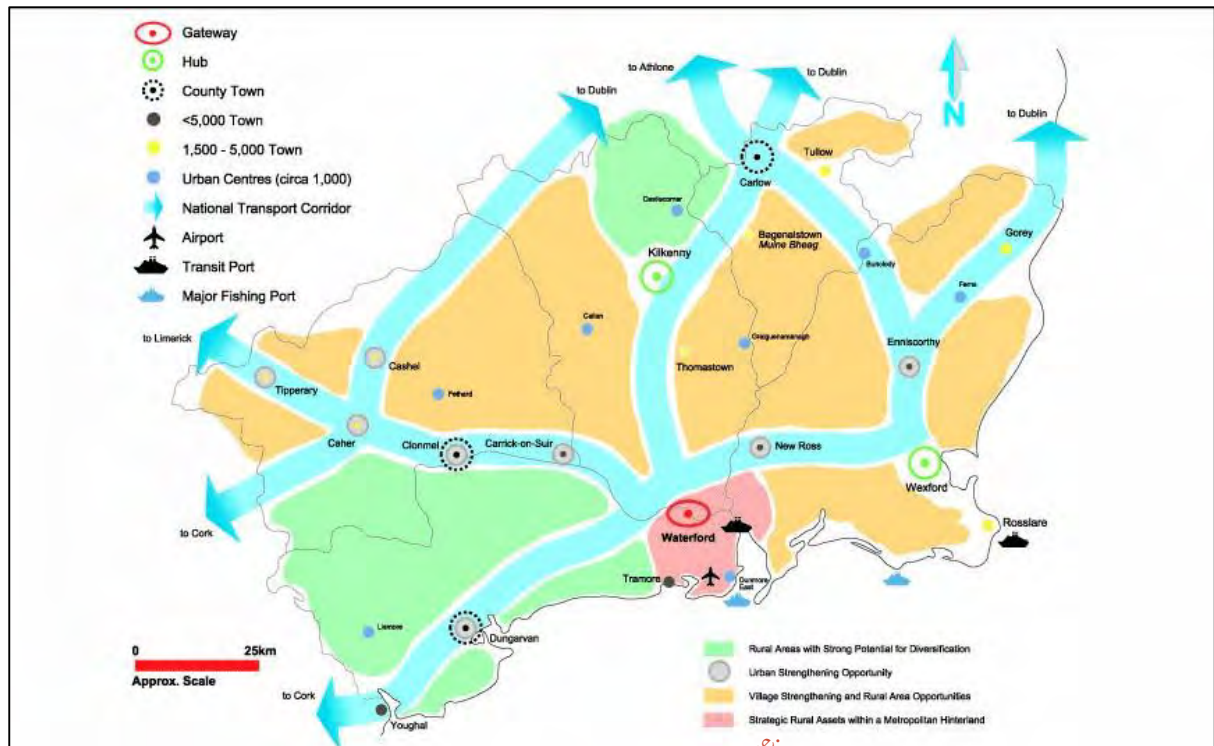


Figure 2: South East Region Transport Corridor

As can be seen from Figure 2, O'Toole Composting is in a central location off the national transport corridor, Carlow being a county town which links the gateways of Waterford and Dublin and the hub towns of Kilkenny and Wexford.

- e) This facility currently operates a waste transfer and composting facility with a permitted annual intake of 10,000 tonnes. O'Toole Composting Limited are now proposing to expand the current operations at the facility. There are two proposed stages to this expansion.

This development is proposed to occur in two stages. Stage 1 of the development will see an increased intake of organic waste for composting and or municipal solid waste for drying and stabilisation, with a proposed maximum annual intake of 40,000 tonnes. As the remainder of this material is transported offsite for further recovery this is regarded as an MBT process. From an MSW of 100% there will be a moisture loss of 43%, Compost Like Output (CLO) of 22% and Dried waste of 35%. This will be further recovered to SRF (Solid Recovered Fuel) 21%, Metal 2%, Plastics 4%, with a residue of 8% for disposal. This will see the composting infrastructure that is currently in place at the facility being used to its maximum capacity. During Stage 1 it is also proposed to construct a civic amenity facility which can be used by members of the public for their waste and recycling. It is also proposed to increase the tonnage of waste accepted in the current waste transfer building up to a maximum tonnage of 20,000 tonnes per annum. Waste material will be bulked up in this building prior to it being transferred offsite to a waste processing or landfill facility. In addition a processing

plant will be installed in this building to maximise recycling and recovery of this type of material. This plant will utilise screening, shredding, magnets and a windshifter. In order to accommodate the additional waste proposed for this building it is proposed to expand the existing building. Planning permission has been granted for the expansion of this building.

Stage 2 of this development will be for the construction, installation and operation of an anaerobic digestion plant. It is proposed that 30,000 tonnes of primarily food waste and industrial sludge but also energy crops such as maize and barley could be accepted and processed for energy generation. No planning permission is in place for this development at present. Planning permission would need to be in place before this proposed development could be constructed. Planning permission will be sought at an unknown future date for this proposal. Any additional environmental impacts that might arise will be addressed in the planning application and as part of a Specified Engineering Works request to the EPA.

- f) The following Classes of activity in accordance with the Third and Fourth Schedules of the waste Management Act 1996, as amended, are as follows:

Third Schedule -Waste Disposal Activities

- 13 Blending or mixing prior to submission to any of the operations numbered from D 1 to 12 (if there is no other D code appropriate, this can include preliminary operations prior to disposal including pre-processing such as, amongst others, sorting, crushing, compacting, pelletising, drying, shredding, conditioning or separating prior to submission to any of the operations numbered D1 to D12)

This activity primarily includes the segregation of bulky waste prior to the residual waste being sent for disposal or the compaction of municipal wastes. At a future date this activity may include the pre-processing of municipal solid waste (MSW) such as mechanical biological treatment which mechanically separates the organic fraction of waste from a mixed waste stream. This pre-treatment is intended to reflect in particular recitals 8 & 17 of the EU Landfill Directive (1999/31/EC). This organic fraction is then biologically stabilised. It may also include the drying of MSW prior to removal offsite.

- 15 Storage pending any of the operations numbered D 1 to D 14 (excluding temporary storage (being preliminary storage according to the definition of 'collection' in section 5(1)), pending collection, on the site where the waste is produced).

This activity will primarily consist to the storage of waste in bays or in the designated quarantine area prior to transfer offsite.

Fourth Schedule Activities -Waste recovery Activities

- 3 Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes), which includes gasification and pyrolysis using the components as chemicals (Principal Activity)

This activity relates to the composting of organic wastes at the facility. It also relates to the recovery or other organic materials such as cardboard, plastic, papers etc.

- 4 Recycling/reclamation of metals and metal compounds

This activity relates to the reclamation of metal and metal compounds from mixed waste loads.

- 5 Recycling/reclamation of other inorganic materials, which includes soil cleaning resulting in recovery of the soil and recycling of inorganic construction materials

This activity primarily relates to the recovery and reclamation of inorganic materials such as construction and demolition wastes, tyres and glass. At a future date this activity may include the processing and recycling of gypsum waste at the facility.

- 12 Exchange of waste for submission to any of the operations numbered R 1 to R11 (if there is no other R code appropriate, this can include preliminary operations prior to recovery including pre-processing such as, amongst others, dismantling, sorting, crushing, compacting, pelletising, drying, shredding, conditioning, repackaging, separating, blending or mixing prior to submission to any of the operations numbered R1 to R11)

This activity relates to the preliminary operations prior to recovery or transportation offsite. Examples of such activities include the segregation of single waste streams such as metals, glass, gypsum, cardboard from mixed waste streams prior to recovery or recycling under of any of the previous recovery classes mentioned.

- 13 Storage of waste pending any of the operations numbered R 1 to R12 (excluding temporary storage (being preliminary storage according to the definition of 'collection' in section 5(1)), pending collection, on the site where the waste is produced)".

This activity relates to the storage of waste in designated storage bays or quarantine area prior to the waste being transferred offsite to a facility for recovery or recycling.

- g) Non-hazardous domestic & commercial waste will be accepted at the facility for composting and waste transfer. The proposed quantities of wastes are as follows:

MSW or Biodegradable for Stabilisation/Composting:	40,000 tonnes per annum
Waste transfer (MSW, C&I and C&D wastes):	20,000 tonnes per annum
Anaerobic digestion:	30,000 tonnes per annum

A full detailed description of all waste types including the European Waste Codes as presented by Commission Decision 2000/532/EC of 3 May 2000 11, are included in Attachment H.1 of this application.

- h) Raw materials used at this facility include water, electricity and fuel such as diesel and gasoil. Other substances used at the facility are for the operation of machinery such as engine oil, transmission fluid, Ad Blue, antifreeze and lubricants.

Once operational the anaerobic digestion plant will produce renewable energy.

- i) Infrastructure, plant and equipment are currently in place for the existing operations at the facility. Apart from the construction of an extension to the waste transfer building and the development of a new civic amenity facility there will be no changes to the current infrastructure on-site for Stage 1 of the development as described in Section (e) of this non-technical summary. On-site processes include the acceptance, storage, composting/drying of municipal solid waste and transfer offsite of wastes. Future on-site processes may include mechanical biological treatment and the processing of gypsum waste. Approval will be sought from the EPA for any proposed new waste processing activity prior to it being commenced at the facility.

All waste vehicles entering the facility are weighed before they enter the site. The vehicle registration, waste type, source of waste and gross weight are all recorded at this point. The vehicle is directed by the weighbridge operative to the appropriate tipping area for that particular waste type. Once waste has been tipped it is inspected by a trained staff member to ensure that the waste type is acceptable. If the waste is found to be unacceptable or contaminated it is rejected from the facility. If the material is accepted the driver is directed back onto the weighbridge where the empty weight will be taken to generate the nett weight for the load. Records of all wastes accepted or rejected from the facility will be maintained on-site at all times.

Mixed waste including skip waste, domestic and commercial waste will be directed to the waste transfer station. Skips or collection vehicles will be emptied on the floor area of the building that has been designated as the waste inspection area. All materials in the skip will be inspected once tipped and if the waste is acceptable it will be moved into the temporary storage bay prior to it being transferred offsite to a waste processing facility. Any unacceptable wastes or wastes that are considered hazardous material such as light bulbs, paint cans, waste electrical goods, batteries will be separated from the waste and stored in assigned banded containers in the designated quarantine area until they are collected by an approved contractor.

The Facility Manager will organise vehicles for the transportation of the mixed waste offsite. The mixed waste will be loaded into articulated trailers by the on-site teleporter. The waste will be sent to an approved waste processing facility for further processing, recovery, recycling or disposal. No wastes will be kept on-site long term and there will be no disposal of waste at the facility.

Segregated wood waste will be directed to the wood storage bay by the waste transfer station. All untreated wood such as timber pallets will be temporarily stored in the wood bay. Untreated wood will be shredded on-site. The wood chip that is produced is then used in the composting process. Any treated wood (e.g. wood that has been varnished), will be treated as mixed waste and send off-site for further processing.

Civic amenity facilities for use by members of the public are limited at present. It is proposed to design and expand a new area to be used as a civic amenity facility for members of the public. This area will consist of skips, containers and compactors for the acceptance of various waste household streams such as cardboard, dry recyclables, plastics, waste electrical goods, glass, wood, textile, rubble, batteries, tyres, municipal waste and food waste. All vehicles wishing to access the civic amenity facility will be directed to the entrance by the weighbridge operative. The containers in the civic amenity site will be emptied as necessary at the end of each working day.

Biodegradable waste for composting or MSW for drying/stabilisation will be directed to the composting shed. If the biodegradable waste is accepted it is moved into the delivery bay area. This waste is shredded and then loaded into one of the composting tunnels. After 7 to 10 days the material is removed from this composting tunnel and placed into a second composting tunnel where it is left for a further 7 to 10 days. Each of the composting tunnels are controlled by a specially designed computerised system. This computerised system can control and monitor the temperature and moisture levels to ensure that the correct conditions are maintained within the tunnels to ensure that the composting process is carried out

appropriately. A specifically designed floor piping system has been installed in the composting tunnels known as an aeration floor. Air can be introduced to the tunnels via this piping system.

Air is circulated throughout the organic material and is extracted from the tunnels via the overhead duct work. The introduction of air to the material during composting is known as an aeration process.

Once aeration has taken place in the tunnels, material from the tunnel will be discharged via the back door of the tunnel where the materials is screened. The large particles of waste, called oversize, are removed from this area and re-circulated to the waste intake area so that they can be mixed with fresh incoming waste and be further broken down by going back through the aeration process. The undersize (particles that meet the size grade) is transferred to the maturation floor. The composted material is left on the maturation floor for five to seven weeks to cure.

In the case of stabilised MSW the organic fines or 'compost like output' is screened and the remainder of the material sent for further processing into Solid Recovered Fuel (SRF)

- j) O'Toole Composting Limited meet the requirements of Section 40(4) of the Waste management Act 1996, as amended. This can be demonstrated in Section L of this application.

Environmental control measures and management practices at the facility will ensure that emissions from the facility will not give rise to nuisance as a result of the on-site activities. O'Toole Composting Limited are committed to complying with the conditions of the EPA Waste Licence, if granted, to ensure that no environmental pollution will occur as a result of the activities on-site. The best available technology has been installed at the facility. A fully computerised GICOM composting system has been installed in the composting building. All future investments will consider best available technology prior to purchase.

O'Toole Composting Limited can be considered a fit and proper person to hold a waste licence as none of the directors of the company or the company itself have ever been convicted of an offence under the Waste Management Acts, Environmental Protection Agency Acts or Water Pollution Acts. Mr Patrick O'Toole, Facility Manager, has eight years in the waste industry and has completed the FETAC Certificate in Waste Management Course. In addition to this O'Toole Composting are in a financial position to meet operating and closure requirements of the waste licence.

Energy is used efficiently at the facility and energy efficiency practices will continue if this waste licence is granted. In Stage 2 of this proposed development, it is

expected that renewable energy will be produced from the AD Plant. This energy can be harnessed and used for the on-site facility operations.

Noise from the facility will not result in nuisances being caused in the surrounds of the facility. Noise monitoring will be carried out on an annual basis at the facility to ensure that noise remains within the limits as set out in the waste licence.

An accident prevention policy and an emergency response procedure is in place at the facility. These policies and procedures will ensure that necessary measures will be taken to prevent accidents and if an accident occurs it will limit the consequence of the accident for the environment.

It is not proposed to cease the activities at the facility in the short or medium term. However should the facility close down, all necessary measures will be taken by O'Toole Composting to ensure that no environmental pollution is caused or that no environmental liability remains on-going at that facility once closed.

- k) The main potential emissions from the facility include dust, noise, litter, flies and odour. Control measures are currently in place at the facility to control the level of emissions and to reduce or eliminate emissions where possible. These control measures, which include daily site inspections, are to ensure that any emissions from the facility do not give rise to nuisances at any of the facility surrounds.

Dust generation is mainly from traffic movement to and from the facility during periods of prolonged dry weather and the tipping of dry wastes at the facility. It is proposed to concrete the remainder of the yard area of the facility over a phased basis which should reduce dust levels. In dry weather conditions the yard area will be dampened down with water to prevent dust becoming airborne. In addition to this vehicles delivering and removing waste from the facility will be covered to prevent dust and litter escaping from trailers. All waste handling will occur within the facility buildings. A negative air odour extraction system is in place in the composting building and is proposed for the waste transfer building. This extraction system will also remove dust particles from the building.

The processing of waste will occur indoors which will limit the generation of noise, litter and flies in the surrounding area to the facility. Machinery will be well maintained to avoid any noise from friction or vibration. Noise monitoring will be conducted on an annual basis, or as required by conditions of the licence, to ensure that noise levels are not exceeding the recommended environmental limits. Litter should be limited at the facility as vehicles delivering or removing waste to or from the facility will be covered and any litter that occurs will be swept up once spotted or reported. Daily site inspections will be carried out to inspect for nuisances including dust, noise, litter, flies, mud or odours. If any nuisances are noted during the daily inspections corrective action will be taken.

An odour impact assessment model was carried out which predicts the potential impacts from odour if this facility were to expand as is proposed by this application. The odour models in this report predicts that there will be no impact from odour at any of the neighbouring properties to the facility. This H₂S, HCl and HF.

- l) As the facility is currently operational it is not considered that there will be any new emissions introduced as a result of the facility operations. Existing site practices will continue in relation to the environmental management of the facility to limit any potential increase in emissions. All wastes will be processed indoors. Due to the building design and infrastructure emissions from the facility will be limited and controlled.
- m) At present monitoring is carried out at the facility in locations identified in Figure 3. It is proposed to continue environmental monitoring at each of these locations as part of this Licence application. It is not anticipated that any of the emission limit values will be exceeded due to the environmental management systems that are in place at the facility. In the event of any emission limit values being exceeded at any stage, the exceedence will be treated as an environmental incident. All environmental incidents will be investigated to determine the root cause of the incident. Retesting will be carried out as part of the incident investigation process. Once the root cause of the incident has been identified, appropriate corrective and preventative action measures will be put in places so as to limit or eliminate the environmental consequences of such an occurrence. Emission Limit Values have been proposed for SW1 and SW2 in line with the EPA's Interim Guideline Values.

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Figure 3 On-Site Monitoring Locations

- ◆ Air Sensitive Receptors
- Dust Monitoring Locations
- PM10 Monitoring Locations
- Noise Monitoring Locations
- ▲ Surface Water Locations

- n) All waste on-site will be handled and processed on-site in a manner that will not affect the recyclability of the materials. Recyclable waste will remain segregated from non-recyclable wastes at all times. Any residual waste at the facility that results from the processing of waste will be transferred offsite to an approved facility. A segregated bin system is implemented in the facility offices for the segregation of all recyclable wastes. Waste from the recycling processes such as waste oil or fuels will be stored in bunded containers and collected from the facility by an approved contractor. No other wastes will be produced on-site. No wastes will be disposed of at the facility.
- o) All wastes temporarily stored at the facility will be transferred offsite to approved waste facilities for further processing, recovery, recycling, waste to energy or disposal. Waste will only be transported by an approved haulier that holds a waste collection permit. Any excess liquid waste water runoff from the composting building will be tankered offsite to an approved waste water treatment plant.

- p) An environmental management system (EMS) is in place at the facility. This EMS contains various management procedures that are in place to ensure that activities at the facility are carried out in accordance with the Licence conditions and in an environmentally sound manner so that any potential emissions from the facility will be controlled. An accident prevention policy and an emergency response procedure are in place at the facility to prevent the occurrence of emergency at the facility and to limit the environmental impact of such an emergency in the unlikely occurrence of such an event. Fire water tanks have been installed at the facility which will act as a fire fighting water source in the event of a fire. At present there are six 5,000 gallon tanks on-site.
- q) There are no short or medium term proposals to close the facility or to cease operations at the facility. In the unlikely event that activities cease at the facility, the facility will be closed so that no environmental liabilities remain at the facility. All wastes will be removed from the facility and transferred to an approved waste facility. Buildings, plant and machinery will be washed down, disinfected or drained of any fuels as necessary. O'Toole Composting Limited will have financial resources available to ensure that the facility can be retendered free from environmental liability if activities cease at the facility. A fully costed CRAMP and ELRA has been supplied to the Agency.
- r) No wastes will be landfilled at the facility at any stage. Any non-recyclable wastes will be transferred from the facility to an approved facility.
- s) The European Communities (Control of Major Accident Hazards Involving Dangerous Substances) Regulations 2000 (S.I. No. 476 of 2000) do not apply to the proposed activities at this facility.
- t) The bedrock in the underlying area of the facility is that of granite and other igneous intrusive rocks. Due to the nature of the proposed activity and the underlying bedrock it is considered that the activity will not give rise to an emission into an aquifer containing the List I and II substances specified in the Annex to Council Directive 80/68/EEC of 17 December 1979.

WASTE LICENCE APPLICATION REG. NO. W0284-01

O'TOOLE COMPOSTING LTD.

REVISED NON-TECHNICAL SUMMARY

7th SEPTEMBER 2013

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Introduction

This is a non-technical summary for the Environmental Impact Statement that has been completed for O'Toole Composting Limited. This EIS has been completed as part of a Waste Licence Application that is being submitted to the Environmental Protection Agency (EPA). An EIS is required for all waste facilities that propose to accept more than 25,000 tonnes of waste per annum. This non-technical summary has been revised in respect of any changes as a result of information submitted to the EPA as a result of an Article 14 (2)(b)(ii) request dated 24th June 2013.

Overview of the Proposed Development

O'Toole Composting Limited is based in Ballintrane, Fenagh, Co. Carlow. This facility has been operational as a composting facility and a waste transfer station since 2005. The facility operates under Waste Permit number WFP-CW-10-0003-01, issued by Carlow County Council. It is now proposed to develop and expand operations at the facility. As part of this expansion an application must be made to the EPA for a Waste Licence which, if granted, will supersede the Waste permit for the facility.

This development is proposed to occur in two stages. Stage 1 of the development will see an increased intake of organic waste for composting and/or municipal solid waste for drying stabilisation and recovery (MBT), with a proposed maximum annual intake of 40,000 tonnes. This will see the composting infrastructure that is currently in place at the facility being used to its maximum capacity. During Stage 1 it is also proposed to construct a civic amenity facility which can be used by members of the public for their waste and recycling. It is also proposed to increase the tonnage of waste accepted in the current waste transfer building up to a maximum tonnage of 20,000 tonnes per annum. Waste material will be bulked up in this building prior to it being transferred offsite to a waste processing or landfill facility. In addition a processing plant will be installed in this building to maximise recycling and recovery of this type of material. In order to accommodate the additional waste proposed for this building it is proposed to expand the existing building. Planning permission has been granted for the expansion of this building.

Stage 2 of this development will be for the construction, installation and operation of an anaerobic digestion plant. It is proposed that 30,000 tonnes of mainly food waste and industrial sludge will be used for this process but energy crops such as maize and barley could also be accepted and processed for energy generation. No planning permission is in place for this development at present. Planning permission would need to be in place before this proposed development could be constructed. Planning permission will be sought at an unknown future date for this proposal. During this planning stage any possible environmental impacts associated with this development will be addressed and will also be submitted to the EPA as part of a Specified Engineering Works request.

Need for the Proposed Development

OTCL is committed to the recycling of waste from all sources including Household, Commercial and Industrial, and Construction and Demolition. Currently there is no other waste transfer facility in County Carlow for the acceptance of commercial waste. The company is particularly focussed on the recycling/composting of biodegradable waste. If the facility operations are expanded as proposed then OTCL will have more composting tonnage capacity available that can be used by other waste operators. This will contribute to Ireland's efforts to meet EU targets of biodegradable municipal waste (BMW) accepted at landfill for disposal as set out by the EU Landfill Directive.

OTCL currently have capacity for up to 40,000 tonnes of composting but are prevented from operating their facility to this capacity by the restrictions of the Waste Facility Permit. It is therefore necessary that OTCL apply to the EPA for a waste licence to operate at this capacity.

Site Description

The facility is located in the townland of Ballintranah in Fenagh, Co. Carlow. The National Grid reference for the facility to which this application relates is S 7886 6762. The site which is 4.87 hectares in area is located in a rural area where the predominant land use is for agriculture. The closest dwelling located 170 meters south of the facility. The site itself was historically used as agricultural land until it was developed by O'Toole Composting as a composting facility in 2005. Currently the facility operates under Waste permit reference Number WFP-CW-1-0003-01, which was granted by Carlow County Council on the 3rd of August 2010 with a maximum permitted tonnage of 10,000 per annum. Various planning permissions have been granted for the facility.

The site itself is well serviced with road networks. The site is located directly off the N80 Carlow/Rosslare Road, approximately 6km south east of the M9 Dublin/Waterford Motorway. The main entrance of the facility is located at the north - west corner of the site, just off a local access road Jocks Lane, which runs perpendicular to the main N80 roadway. Sufficient sightlines are at either side of the access lane for safe access and egress to the facility. O'Toole Composting is in a central location off the national transport corridor, a county town which links the gateways of Waterford and Dublin and the hub towns of Kilkenny and Wexford.

The bedrock in the underlying area of the facility is that of granite and other igneous intrusive rocks which act as an impermeable barrier to groundwater from the facility.

The site is located in the River Barrow Catchment, within the South Eastern River Basin District. The River Burren flows in a north, north-westerly direction along the eastern site boundary. The Graiguealug stream flows in an easterly direction to the north of the site and joins the River Burren. Because the River Burren is part of the

River Barrow system and the former is a candidate Special Area of Conservation a screening for Appropriate Assessment was carried out. This screening determined that the development will not have any impact on the SAC.

Waste Activities

The following Classes of activity in accordance with the Third and Fourth Schedules of the waste Management Act 1996, as amended, are as follows:

Third Schedule -Waste Disposal Activities

- 13 Blending or mixing prior to submission to any of the operations numbered from D 1 to 12 (if there is no other D code appropriate, this can include preliminary operations prior to disposal including pre-processing such as, amongst others, sorting, crushing, compacting, pelletising, drying, shredding, conditioning or separating prior to submission to any of the operations numbered D1 to D12)

This activity primarily includes the segregation of bulky waste prior to the residual waste being sent for disposal or the compaction of municipal wastes. At a future date this activity may include the pre-processing of municipal solid waste (MSW) such as mechanical biological treatment which mechanically separates the organic fraction of waste from a mixed waste stream. This pre-treatment is intended to reflect in particular recitals 8 & 17 of the EU Landfill Directive (1999/31/EC). This organic fraction is then biologically stabilised. It may also include the drying of MSW prior to removal offsite.

- 15 Storage pending any of the operations numbered D 1 to D 14 (excluding temporary storage (being preliminary storage according to the definition of 'collection' in section 5(1)), pending collection, on the site where the waste is produced).

This activity will primarily consist to the storage of waste in bays or in the designated quarantine area prior to transfer offsite.

Fourth Schedule Activities -Waste recovery Activities

- 3 Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes), which includes gasification and pyrolysis using the components as chemicals (Principal Activity)

This activity relates to the composting of organic wastes at the facility. It also relates to the recovery or other organic materials such as cardboard, plastic, papers etc.

4 Recycling/reclamation of metals and metal compounds

This activity relates to the reclamation of metal and metal compounds from mixed waste loads.

5 Recycling/reclamation of other inorganic materials, which includes soil cleaning resulting in recovery of the soil and recycling of inorganic construction materials

This activity primarily relates to the recovery and reclamation of inorganic materials such as construction and demolition wastes, tyres and glass. At a future date this activity may include the processing and recycling of gypsum waste at the facility.

12 Exchange of waste for submission to any of the operations numbered R 1 to R11 (if there is no other R code appropriate this can include preliminary operations prior to recovery including pre-processing such as, amongst others, dismantling, sorting, crushing, compacting, pelletising, drying, shredding, conditioning, repackaging, separating, blending or mixing prior to submission to any of the operations numbered R1 to R11)

This activity relates to the preliminary operations prior to recovery or transportation offsite. Examples of such activities include the segregation of single waste streams such as metals, glass, gypsum, cardboard from mixed waste streams prior to recovery or recycling under of any of the previous recovery classes mentioned.

13 Storage of waste pending any of the operations numbered R 1 to R12 (excluding temporary storage (being preliminary storage according to the definition of 'collection' in section 5(1)), pending collection, on the site where the waste is produced)".

This activity relates to the storage of waste in designated storage bays or quarantine area prior to the waste being transferred offsite to a facility for recovery or recycling.

Non-hazardous domestic & commercial waste will be accepted at the facility for composting and waste transfer. The proposed quantities of wastes are as follows:

MSW or Biodegradable for Stabilisation/Composting: 40,000 tonnes per annum

Waste transfer:	20,000 tonnes per annum
Anaerobic digestion:	30,000 tonnes per annum

Environmental Impact

Environmental Nuisances

As with any waste facility it is possible that some environmental nuisances may occur within the site, and within the surrounding environment. Potential nuisances may possibly include noise, vermin, dust, odours or litter. However this impact will be minimal due largely to the control measures adopted on site to combat the effect of these environmental nuisances. Strict adherence to the conditions of the waste license, good management practises, control over individual procedures, and maintenance of the odour abatement systems are essential to ensure the site will not impact on receptors in the area. The existing site has a good environmental record which O'Toole Composting Ltd. strives to maintain. It is not expected that the expansion of operations at the facility will give rise to nuisances offsite.

Noise

The primary source of noise at the facility is from the movement of on-site vehicles and machinery and the movement of vehicles to and from the facility. As all processing of waste will occur within the processing buildings noise will be controlled. The impact of noise from traffic to and from the facility is not considered to have an adverse impact due to the current traffic volumes on the N80 roadway. Noise monitoring has been carried out at the facility. All noise emissions were within the recommended limits. Noise monitoring will continue to be carried out at the facility.

Vermin

A vermin control system is in place at the facility. This system includes laying of bait points and weekly inspections. At present vermin does not cause any nuisance at the facility. Existing control measures will remain in place and routine inspections will be maintained. External rodent control companies will be employed if considered necessary in the future.

Dust

Dust may be caused at the facility from traffic movement at the facility during prolonged periods of dry weather or from the processing of dry wastes. Control measures are in place at the facility in the form of a traffic management plan which limits the speed of vehicles on-site and the processing of all wastes is carried out within the processing buildings. In addition to this concrete hardstand at the facility will limit dust. Areas of the yard can be dampened down with water during periods of prolonged dry weather. The odour control negative air system also acts as dust extraction system. Dust

monitoring has been carried out at the facility and all dust emissions are within the necessary limits. This monitoring will continue to be conducted.

Odour

Odour is the most significant environmental aspect of this proposed development. For this reason several odour control measures have been put in place at the facility. The primary odour control measure is the proposed (and extension of existing) odour control system which is based on a bio-filter and will be a simple and effective way of controlling the odour of the waste air coming from the building. OTCL have a mobile atomised probe unit at the facility. This unit is a self contained transportable system which is powered by a motor and disperses odour neutraliser to give immediate odour suppression to confined areas if odour is detected.

Other measures include:

- Ensuring where possible that the building is constructed without any gaps in the building fabric using combined flashing and expanding foam,
- Installation of roller doors on the entrance and exit of the waste reception hall,
- Give consideration to the installation of PVC plastic curtains inside the doors to reduce the available door area once the roller door is opened if necessary,
- Zoned extraction within the building to remove odorous air from the most odorous sources within the building.

Litter

The main source of litter at the facility is from litter being created from the transportation of waste. All waste collection vehicles delivering waste to or transferring waste from the facility will be appropriately covered to ensure that windblown litter will not be caused. Site inspections are carried out on a daily basis and the facility and surrounds are monitored for litter. If litter is detected then it is picked up immediately.

Water

An environmental assessment was carried out by Enviroguide Consulting to determine the impact that this proposed development would have on surface and ground water. The geology was examined with all published information that was available.

This section is divided into sub-sections, so as to describe the various aspects relating to the water environment.

Surface Water

This section deals with the potential impacts on surface water resulting from the construction of an extension at the waste facility and the proposed control measures to minimise such an impact.

All surface water from the facility runs to a stream that runs along the eastern boundary of the site. This stream flows into the Burren River. As the facility is currently operational surface water sampling is carried out at two locations on this stream. Results of this sampling is included in the main body of the EIS. All results are below recommended EPA's Interim Guidelines limit levels. ('Towards Setting Guideline Values for the Protection of Groundwater in Ireland' – EPA 1993)

Groundwater

There are no proposed discharges to ground water from the facility. There are no source protected zones in the vicinity of this facility. All liquids and fuels stored on-site are stored in bunded containers to prevent penetration to ground water in the event of a spillage. Concrete hardstand at the facility and the underlying bedrock act as protection barriers to groundwater.

Waste Water

Wastewater from the operation of the facility is collected in holding tanks on-site. This wastewater is either reused in the composting process for moisture in the composting tunnels or it is tankered offsite to a waste water treatment plant. Foul water discharges from the offices is diverted to a septic tank on-site.

During the construction phase there is a potential for sediment laden water to run off from the site. Due to control measures on-site the predicted impact of the construction phase on surface water quality is minimal.

Surface water monitoring is proposed to continue at the facility to ensure that the operation of the facility does not cause any adverse affects on water quality.

Human Beings

Human beings are one of the most important elements of the 'environment' to be considered. One of the principal concerns in any proposed development is that the local population experiences no reduction in the quality of life as a result of the development on either a permanent or temporary basis. As the facility is currently operational it is expected that any impacts on human beings will be of little impact.

The facility is located just off the N80 main Carlow to Wexford road. The nearest dwelling is approximately 170 meters away to the south. The facility has a low visibility impact on the residents due to the screening surround the facility. Potential impacts could include impacts on noise, traffic, fire safety, human health, land use, odour and socio-economic impacts.

Due to the location of the facility and considering that the facility is currently operational, and has been since 2005, the predicted impacts on noise, traffic, safety, human health, land use, odour and socio-economic impacts are considered to be of

negligible impact. Several fire safety measures have been implemented at the facility to control any potential impacts in the unlikely event that a fire would occur at the facility. These controls include six 5,000 gallon (22,000 litre) water tanks for holding water specifically for fire fighting purposes. Appropriate fire extinguishers have been installed at various points throughout the facility so that fires can be extinguished rapidly to limit fire damage.

Air Quality

This section of the EIS outlines the current baseline conditions of air quality at the facility. Possible predicted impacts from the proposed increased activity at the facility are odour, dust and bio-aerosols. All wastes are processed within the facility buildings which will reduce the potential of these impacts. In addition to this, a bio filter has been installed in the waste composting building. This bio-filter will greatly eliminate any odour, dust or bioaerosol particles that may be otherwise emitted from the building. As part of the proposed extension to the waste transfer building it is proposed to install a biofilter in this building also to minimise dust and odour impacts. With these control measures in place the impact to air quality is considered negligible. An Air Dispersion Model was prepared by RPS consulting to predict possible patterns of air dispersions from the facility. This includes dispersion modelling for H₂S, HCl, and HF. A copy of this report is included in the EIS document.

Climate

30 year averages for the site (from Kilkenny weather station) show the following relevant information:

1. The mean daily temperature is 9.3 degrees Celsius with a mean daily maximum of 13.4 degrees C and a mean daily minimum of 5.2 degrees C.
2. The mean annual rainfall is 822.8 mm
3. The mean monthly windspeed is 6.5 knots.

Given the above it is determined that the climate for the area of Ballintrane is regarded as normal with no exceptional values shown.

Carbon dioxide from the processing of biodegradable waste is not regarded as a net contributor to greenhouse gas emissions because the carbon had a short carbon cycle in other words it was stored in the biomass for a limited number of years as opposed to the hundreds of thousands of years for fossil fuels.

Similarly the processing of MSW and removal of all biodegradable waste from this waste stream will reduce the potential for methane generation should residual amounts of this material be landfilled prior to this treatment. This process therefore has a slightly positive impact on the climate.

Anaerobic Digestion of sewage sludges or biodegradable material and the production of electricity will have the double positive impact of preventing methane emissions from this material should it be landspread or landfilled and production of electricity which will feed into the grid and reduce the requirement for electricity from fossil fuels.

As the impacts of the current and future activities will have a positive impact on climate no mitigation measures are required.

Traffic

The facility is located on the main N80 Carlow to Wexford Road. A Traffic Impact Assessment was carried out to determine the impacts the proposed increased activity would have on overall traffic volumes. The survey indicated that the annual average daily traffic on the west (Carlow) side of the facility is 4,292 vehicles per day with a HGV content of 8.6%. The average daily traffic on the east (Wexford) side of the facility is 4,089 vehicles per day with a 9.7% HGV content. While it is predicted that the traffic to and from the facility will increase as a result of the proposed expansion of activities at the facility, the overall increase in traffic is less than 5% of the current traffic volumes.

The entrance to the facility is located off a local lane just off the N80 roadway. There will be no queuing of vehicles on the main roadway. Safe sightline visibility exist to allow for safe access and egress from the junction.

Noise

The main source of noise at the facility is the background noise created from traffic movement on the N80 roadway. However day and night time monitoring is carried out at the facility on an annual basis. All noise limits are within the recommended noise limits. Full copies of the noise reports are included as part of the EIS document.

Flora & Fauna

An assessment of flora and fauna was carried out at the facility. The existing flora on site is limited due to the extent of the existing hardstanding area. However within the small areas of managed grassland there are several dominant grass species. The surrounding land is used exclusively for agriculture with fields immediately adjacent to the facility.

Due to the developed nature of the facility there is a lack of Fauna species. Fauna present on the site are mainly birds using the hedgerows adjacent to the site for shelter or winter roosts. None of the bird species identified are a protected species.

The survey found that there were no sensitive or protected flora or fauna present at the site. In addition there are no significant additional groundworks proposed as part of the application therefore it is considered that there will be no resulting impacts on flora or fauna.

Soil & Geology

Published geological information for the site identifies the bedrock as Caledonian Granite. There are no geological features of significance either at or beneath the site and therefore the proposed development will have little or no impact on local geology.

The site and its immediate surrounds have historically been used for agricultural grazing and it is not expected that there is potential for previous contamination of the subsurface.

There will be no discharges to the subsoil as part of this proposal and therefore no impacts to the underlying subsurface. There will be no extraction or removal of sub-soils.

The potential interaction with groundwater is low due to the low porosity of granite.

Mitigation measures will include storage of all liquids, fuels etc in appropriate bunds.

Cultural Heritage

There are no known sites of archaeological interest located in the environs of the site and there are no additional excavation groundworks proposed as part of the development. Therefore there will be no impact on archaeology in the area. None of the archaeological sites identified in the EIS can be seen from anywhere within the development site and as such the proposed development will not result in any negative visual impact to these features.

The proposed development will not impact on features or events of historical interest.

There are no structures of archaeological interest located in the defined study area and as such there will not be any negative impact resulting from the proposed development.

Material Assets

The facility is not designated as a Natural Heritage Area or proposed candidate Special Area of Conservation.

Property prices are expected to be unaffected by the proposed development as the facility has been in operation since 2005. The extra traffic movements may cause very slight disruption to road users but this is expected to be countered by the extra employment created at the site.

Interaction of the Foregoing

Human Beings/Fauna

Waste facilities have the potential to attract unwanted fauna such as rats, flies, and birds. Mitigation measures to protect against these potential impacts are proposed in the EIS, after which effects on the local community are expected to be insignificant.

Human Beings/Water

Mitigation measures to address potential impacts on water quality are addressed in the chapters dealing with Soils and Geology and Hydrogeology and Hydrology.

Water/Flora and Fauna

Contamination of surface water has the potential to impact on water quality of streams and rivers. This impact has the potential to affect the aquatic life of these water courses. Mitigation measures are detailed in the relevant chapters.

Water/Soil

Soil beneath the site can act as a pathway for contaminants reaching both the groundwater and surface water. Mitigation measures and monitoring controls are detailed in the relevant chapters.

The facility will be operated to the Best Available Technology (BAT) as per EPA recommendations and under the conditions of the Waste Licence.

The EPA carry out regular environmental audits and compliance monitoring is carried out by both the Agency and the licensee. These reports are available to the public and will allay any public concerns regarding the environmental performance of the site and will result in a positive interaction with respect to human beings.

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