

**WASTE LICENCE APPLICATION REG. NO. W0284-01**

**O'TOOLE COMPOSTING LTD.**

**REVISED NON-TECHNICAL SUMMARY**

**7<sup>th</sup> 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 24<sup>th</sup> 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 H<sub>2</sub>S, 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 laneway 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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