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Non Technical Summary of the Environmental Impact Statement for the Carbury Composting Ltd. Facility at Drummin, Carbury Co. Kildare

### Introduction

Carbury Composting Ltd. (CCL) presently operate a Composting Facility under a waste licence on a 9.4 ha site at Drummin, Carbury Co. Kildare.

This section forms part of the Environmental Impact Statement (EIS) relating to the proposed development has been prepared by CCL and their Consultants to accompany a planning application to Kildare County Council.

The EIS describes the receiving or existing the environment into which the proposed development will be placed. Potential impacts resulting from the development are outlined in the EIS together with proposed mitigation measures, which will prevent or reduce the identified potential impacts.

This Section summarises the EIS and describes the scale and scope of the proposed development.

### Overview

The company intends to modernise and expand the facility within the existing site area to increase the capacity of the facility to process 160,000 tonnes/annum of raw materials and produce some 109,000 t/a of mushroom compost. The existing facility

utilises horse manure, poultry litter, gypsum, water and straw to produce compost exclusively for the mushroom growing industry.

The proposed facility will see composting operations carried out within infrastructure at the site comprising a raw materials reception hall, new purpose built Phase I bunkers and Phase II / Phase III composting tunnel complexes which will replace the existing windrow composting processes which have been in operation since the 1960's. The proposed expansion will involve the demolition of some existing buildings to make way for the construction of modern purpose built composting operation and necessarv ancillary intrastructure.

The existing site is composed of two main operations, the composting operation (on 5.03 ha) and a separate mushroom growing facility. The demolition of some of the mushroom growing buildings will reduce the capacity of the mushroom growing operation by some 45%. A portion of the compost produced on site will continue to be used by the on site mushroom growing operation.

The proposed composting process will be as follows: raw materials are imported to the site for processing and are received, weighed and verified at the entrance. The materials are then directed to the reception hall where they are stockpiled in dedicated bays prior to processing. The imported straw bales are dipped in a vat of water and stored for up to three days to allow biodegration to commence. This wetted straw is then broken

down, placed on the conveyor and blended with the poultry litter (which has already been premixed with gypsum). The material is then placed in one of a number of Phase I bunkers which undergo continuous forced aeration for two days following which the material is taken out and horse manure is added via a hopper. Some additional poultry litter may be added at this stage. This cycle repeated three times and takes approximately 6 to 7 days. The material is then left in the bunkers for a period of 4-5 days. Water is added on a regular basis throughout the process. This concludes the Phase I treatment process and takes a total of some 13 days. Material from Phase I is removed and placed in the tunnels in the Phase II / Phase III tunnel complex. The material is left in these tunnels for 6 days during which time no water is added although forced aeration is used on continuous basis. Pasteurisation of the material occurs and the material is heated to 58° to 59°C. When Phase II is complete, the material is removed, spawned mushroom spawn and placed in Phase III tunnels for 14 to 17 days during which period forced aeration is continued and no water is added. The maximum temperature is no greater than 25°C.

All processing with the exception of the wetting of straw is carried out in doors inside the main reception hall and bunker and tunnel complexes. The air in the Phase I bunkers is recirculated and a fraction is discharged to the atmosphere at an elevated position via the air emissions stack located along the southern wall of the Phase I building. This will reduce the potential for

odour, noise and dust from the operations. Handling of the raw materials inside a fully contained building with roof, concrete floor and concrete lower walls will eliminate the potential for leachate emission to ground or surface water bodies as rainfall will not gain access to the composting operation.

The process from reception of raw materials to Phase III sees a gradual reduction in volume, finally producing a relatively dry and odourless product. It is planned that some 2,100 tonnes of mushroom compost will be produced each week. 135 tonnes per week will be used on site in the mushroom growing operation. The remaining compost will be delivered as bulk product to satellite mushroom farms.

delivered to and from the straw transported in fully contained or covered in trucks (the horse manure trucks will be covered by a net).

# Location and Setting

The site is located in a rural setting in the townland of Drummin, 2.5km south of Derrinturn, Co. Kildare. The site is generally flat at a height of approximately 80 m above sea level and is bounded by the R403 regional road to the west and hedgerows to the north south and east. Neighbouring lands are given almost entirely to agricultural usage with cereal growing, grasslands and horse rearing predominating. Timahoe bog is located to the east of the site and the Bog of Allen to the southwest.

Composting has been carried out at the site since the 1960's. The existing site infrastructure comprises of composting and mushroom growing buildings, open windrow composting, materials storage in the open yard and ancillary structures such as offices, bunds, gates, fencing etc.

The site is served by three phase electricity, telecommunications, public water mains, storm water drainage and foul water drainage. A puraflo wastewater treatment system is located along the northern boundary along with a water storage tank (tank A - 400,000 gallon capacity).

# **Planning Context**

The current Kildare County Council Development Plan was produced in 2005. The location, construction and operation of the proposed facility are consistent with the current aims and objectives of the development plan and national policy.

The proposed facility will help to promote environmental sustainability by providing much needed management facilities for horse and poultry manure.

The Development Plan indicates that apart from one-off housing development, there are many uses which may take place in rural country side. Where an area of land is not within an identifiable settlement, and is not otherwise zoned as part of this development plan, or of the town Development Plans, the use of such land will be deemed to be primarily agricultural.

The Development Plan, through the Waste Management Plan for County Kildare reinforces the Councils policy to encourage waste prevention, minimisation, reuse, recycling and recovery as methods of managing waste, and to examine the possibility of converting waste to energy and it is the policy of the council that such strategies will take precedence over other forms of waste disposal such as landfill.

The site is not situated in any areas of Scenic Amenity, High Amenity or any areas of Specific Interest. It is not located in a pNHA, pSPA or pSAC and does not impinge on any designated views or aspects. The existence of the proposed facility and its proposed expansion will have a positive effect on the local environment in that it will provide an outlet for the horse manure and poultry litter that may otherwise have been landfilled as a waste or landspread. Both of these options have potential implications for the environment.

# **National and Regional Waste Policies**

National Policies on Waste Management and the Waste Management Plan for the Kildare Region were researched to ensure that the proposed expansion of the facility was compatible with the policies and aspirations of these policy documents. The proposed development fits in well with **Policies** the National and Waste Management Plans in terms of the following: (i) Meeting national targets by promoting reuse and recovery over landfill (ii) Fits in well with the role of private sector involvement in waste management as stated

in the policy documents and waste management plans;

The existing composting facility has been in place for over 40 years and with the proposed modernisation and expansion will enhance its environmental performance with respect to the criteria set out in the Waste Management Plan and all other relevant environmental Regulations and guidelines.

### **Alternatives**

Alternative waste management practices broadly include the 'prevention' of waste, energy recovery (thermal treatment) and waste disposal. CCL are not a waste producer and therefore has no control over the prevention of waste. The proposed development will continue to provide a better and more acceptable alternative for the management of the raw materials compared either energy recovery (thermal treatment) or waste disposal (to landfill).

The current CCL site is considered an optimum location in terms of proximity to materials sources and taking into account all environmental considerations. The reality of operating a composting facility with all the necessary health & safety environmental controls is such that it is only economically viable to operate using the economies of scale which are provided by the proposed development. It would not be economically viable to operate two facilities to produce the same volume of compost and it is not considered best practice to move the existing facility from its present location to a new location.

# **Existing Environment**

The development site is located in a predominantly agricultural area 2.5km south of Derrinturn village and is characterised by sparse residential housing. It is surrounded by agricultural activities including cereal farming, pasturelands and horse related industries

There are 22 houses located within 1km of the site. The nearest residence is located at the northwest corner of the facility.

Derrinturn is ocated 2.5km northwest of the site, Edenderry 10km to the west and Allenwood 5km to the southeast of the site.

located in a lowlying area at a height of approximately 80m above sea level. The site is drained by a small tributary of the Cushaling river which flows in a southwesterly direction approximately 600m from the site. The Grand Canal is located about 1.2 km to the south of the site.

The average annual rainfall for the area is estimated at 711mm. The main wind direction is from the west and the south west. Average annual temperatures are approximately 10.0°C with mean daily temperatures in January and July of 6.8°C and 15.9°C.

Total dust was monitored at 4 locations on the site during July and August 2005 and the results indicated that dust levels were well within the recommended deposition limit of 350 mg/m<sup>2</sup>/day (TA –Luft guidelines).

Baseline noise measurements were undertaken at the site boundaries and one nearby sensitive receptor for day time and night time. Day time noise recorded noise sources including passing traffic, fan and cooler noise, generator/compressor noise some site traffic movements such as forklifts and their reversing alarms. Night time noise recorded proportionally more noise relating to site activities as traffic noise was less prevalent. Other noise emitters recorded included birdsong, dogs barking, agricultural machinery in the vicinity of the site and aircraft passing overhead. Noise at the nearest sensitive receptor was dominated by traffic noise although faint noise was observed from occasional reversing alarms and generator/compressor noise.

The bedrock underlying the site at Drumin is interpreted as the Waulsortian Formation, characterised by reef or clean shelf type limestones which are commonly dolomitised. Dolomitisation in north Kildare is known to be of a lower intensity and this leads to these rocks having lower permeability and porosity than their equivalents in south Kildare such as at Athy or Newbridge.

The bedrock is overlain by soils of the Allenwood complex and Kilpatrick series generally associated with the margins of bogs or peat lands.

The aquifer status of the bedrock underlying the site has been classified by the Geological Survey of Ireland as a locally important aquifer (generally moderately productive only in local zones). It is reported that all houses/businesses within 500m of the site are connected to the public mains water supply. Groundwater flow beneath the site is likely in a northwesterly direction mirroring the surface water drainage pattern. Regional flow may tend more towards the south west mirroring the Cushaling river. The available information suggests that natural aquifer vulnerability should be assigned a rating of moderate to low given the highly variable overburden thickness and its inherent nature.

The site is crained by the Cushaling River which joins the Figile river which is a tributary of the River Barrow which enters the Irish Sea at Waterford Harbour.

Regular surface water samples were collected on the nearby stream at four locations including one upstream and one downstream of the site and indicated generally good quality water.

The proposed site is not covered by any nature conservation designations. The nearest pNHA includes the Grand Canal which is 1.2km distant and Carbury Bog which is also a pNHA.

The principal habitats at the site included buildings and artificial surfaces, hedgerow, treeline and grassy verge. None of these habitats are considered rare or unique and are very typical within the location.

The site is located in an agricultural area on the outskirts of Derrinturn village. Therefore

the predominant landuse in the immediate vicinity is rural residential/agricultural. However the surrounding area is dominated by agricultural usage with tillage and arable farming, pasturelands and horse rearing/breeding predominating.

Nearby population centres include Derrinturn village located 2.5km north of the site, Edenderry 10km to the west and Allenwood 5km to the southeast of the site.

There are some 22 No. dwellings within 1 km of the site. Local employment is provided by the CCL facility (including the composting and mushroom growing operations), farming and the equine industry. Service industries in the local population centres provide employment. This area of Kildare would also be considered to be within the commuter belt to the greater Dublin region and a wide range of employment opportunities are available to the local populace.

The peak traffic hour has been identified as 1730 to 1830 hrs. The 2006 AADT is estimated at 4,400 to 5,300 vehicles per day. Traffic to and from the site comes from both the northern and southern directions of the R403 with slightly more traffic travelling the northern route.

The landscape character in the direct vicinity of the development is rural in nature, comprising agricultural activities of cereal crops, pasture lands and equine uses. Residential dwelling are located directly north and west of the site.

The existing site is surrounded on all sides by fencing and/or hedgerows. There are relatively strong and mature hedgerows along the northern boundary providing good The western and southern screening. boundaries are moderately strong with hedgerows although a little thin in places. The eastern boundary has relatively low quality screening although there are no dwellings with views of the site from this direction. The existing facility is reasonably well screened from views outside the site and particularly from the bulk of the nearby dwellings. The site is not located in any area of high amenity or scenic amenity, is covered by any environmental designations and does not obstruct any designated views or aspects.

expansion of activities at CCL within the existing site boundaries and will not entail any ground disturbance outside the existing site footprint. In a wider context, there are two sites of archaeological importance within 1km of the site at Drummin (Graveyard at Kilpatrick- 600m and Rectangular Enclosure at Rathmore- 1020m) and a number of archaeological artefacts have been recovered in the nearby boglands.

There are no significant tourist features in the direct vicinity of the site. There are some horse riding enterprises in the region. The surrounding area has a limited appeal to tourists although several small villages including Carbury, Nurney and nearby Robertstown have been designated "Special Villages" due to their overall special amenity character and quality. Fishing is also a

popular activity on the counties many rivers and water courses including the Grand Canal.

The R403 road, from which the site will be accessed, is located immediately to the west of the site. The nearby regional road network including the R401, R402 and R415 are located within 10 km of the site serving locally important towns including Edenderry, Enfield and Newbridge. The M4 motorway recent upgrade of the national primary N4 is located 11.5km to the north of the site.

# Description of the Proposed Development

CCL propose to expand their existing composting facility at Drummin, Derrinturn, Co Kildare. The existing facility processes straw, horse manure, poultry litter, water and gypsum to produce compost at the site which also incorporates a mushroom growing operation. The existing facility was granted planning permission from Kildare Co. Co. and has operated under a Waste Licence issued by the EPA since August 2004. The company plan to expand the process up to facility and tonnes/annum of raw materials and produce some 109,000 tonnes of mushroom compost per year.

The existing site infrastructure consists of the following:

A number of large processing buildings/warehouses, open yard windrow composting and raw materials storage, and ancillary structures such as offices, oil bunds, boilers, fans, water storage tank (tank A), puraflo wastewater treatment plant, gates, fences etc. There are also a number of mushroom growing buildings on site. A number of open yards composed of concrete paving make up the remainder of the site.

The Company plan to upgrade the site infrastructure in the following ways:

It is intended to demolish many of the existing buildings to make room for a modern purpose built composting facility. It should be noted that this will entail reducing the mushroom growing capacity by some 45%.

intended to construct a new raw material reception hall building in the northeast of the site. This building will be used for the importation and storage of the raw materials used for composting. The building will be completely contained with concrete base, walls, roof and roller shutter doors. The raw materials will be stored in designated bays located within the building. The bays will consist of low concrete walls dividing one from the other and will store poultry litter, horse manure and gypsum.

In addition, the construction of a new bunker composting facility for the Phase I composting process, to be located adjacent to the southern wall of the reception building, is also proposed. This will consist of a building containing 14 enclosed concrete bunkers each with access from the northern (internal) side.

The installation of modern mixing/blending plant in the reception building will provide an efficient method of blending the raw materials prior to composting. This will be connected to a new state of the art distribution system. The distribution system provides a controlled and mechanised method for depositing the mixed material into the new Phase I bunkers. The material will be distributed evenly in the designated bunker from the distribution system at the top (roof area) of the bunker. The bunkers will incorporate a forced aeration system from the floor of each bunker.

Furthermore a new straw storage and wetting area is proposed in the northeast corner of the site. New Phase II and III composting tunnels located just to the west of the new Phase I bunkers are dated proposed.

The installation of wheel washes near the site entrances, oil storage bunds, a new 250,000 gallon water tank (tank B) for the storage of sewage effluent and floor drainage from the composting buildings and the commissioning of a new site entrance along the western (road) boundary are also proposed.

Raw materials used at the facility are in most cases imported from longstanding suppliers who are fully aware of the type of material acceptable at the facility. There are very few cases of unacceptable loads arriving at the

facility. In any case, all material brought to the facility will be tipped out onto the floor of the relevant bay in the reception building and inspected thoroughly at this point. Unacceptable material, if present, will be reloaded and sent back to the supplier. If this is not possible then the material will be stored in a designated bay located in the reception building. The reception bays will be designed with concrete floor and surrounded by concrete walls on three sides.

The processes carried out at the existing site comprise 3 Phase composting and use of open windrow and tunnel composting methods in summary, the raw materials are imported and stored on site in the reception area. The straw bales are wetted by dunking the bales in water. These are then broken up and blended with the manure, litter and gypsum and then placed in long narrow ridges or windrows for the first stage of composting. The windrows are turned by specialised turning machines about every third day and the material is kept moist by adding water if required. The entire site is concreted and all drainage from the yard is contained and collected into a storage tank (tank A) located along the northern All of this drainage water is boundary. reused on site in keeping the compost moist during the composting process. Phase I takes approximately two weeks to complete and then the material is moved to Phase II. Here the material is composted in concrete tunnels with forced aeration from the floors of the tunnels. The material is moved from

tunnel to tunnel during the two week long Phase II process to facilitate mixing and aeration. When Phase II is complete the material is spawned with mushroom spawn and moved to the Phase III tunnels which process is almost identical to the Phase II process. The weight and volume of the material reduces considerably during the entire composting process.

The finished compost is then ready for use. The compost is used exclusively in the mushroom growing industry. Approximately 22% is used in the mushroom growing tunnels located at the site and the remainder is exported to other mushroom farms. The bulk of the compost is exported in bulk loads. A small percentage is moulded into small blocks for export.

The site will be open for the expert of compost from 0500 to 2200 hrs. Monday to Saturday. Raw materials will be imported from 0600 to 2000 hrs. Monday to Friday and 0800 to 1300 hrs. Saturday. No raw materials are imported on a Sunday. Site operations are carried out from 0600 to 2000 hrs. seven days a week and mushrooms are exported seven days a week.

The location and the design of the facility along with the specified processes, procedures and mitigation measures will preclude the generation or impact from any potential nuisances such as aerosols, birds, dust, litter, odours, vermin or traffic.

There will be some emissions associated with the operation of the facility as detailed in the main body of the EIS. These will include in the main odour, noise and dust. The facility has been designed and the operation will be such that the volume and duration of these emissions along with the proposed mitigation measures will not allow for any significant impact on the local environment.

It is proposed to continue to carry out environmental monitoring at the facility in line with the requirements of the waste licence governed by the EPA and any additional requirements the Local Authority may have in relation to monitoring.

जारिं आर् specified. It is considered that " basic infrastructure will be sold on when closed. All other plant, equipment, machinery and infrastructure will either be sold or dismantled and recycled. All raw materials and compost will be removed off site and the entire property will be swept and cleaned to an acceptable standard. A post closure monitoring programme will be put in order monitor the place in to the decommissioning process environment after the facility has closed.

An Emergency Response Procedure (ERP) has been devised and includes contingency planning in the unlikely event of an emergency. As the facility will be in operation 24 hours a day, staff will be present for long periods during the week. Plant and equipment breakdown will be

handled rapidly by repairs or hire of alternative plant and equipment. Any leakages or spillages of oil will be handled by use of oil mats and booms and relevant expertise will be contracted immediately. Fire fighting capacity is provided for by the installation of fire alarms, extinguishers and water hoses in all buildings and staff will be trained in the use of this equipment. The fire brigade will be contacted immediately. Certain staff members will be trained in first aid management in order to deal with minor health and safety incidents. Phone numbers for all emergency services will be clearly posted adjacent to all telephones on site. All emergencies will be immediately reported to the EPA, Kildare County Council and the Eastern Regional Fisheries Board as appropriate.

# Potential Impacts, Mitigation Measureschafter and Likely Significant Effects

amd The proposed development demolition/construction and perational phases have the potential to impact on the receiving or existing environment at Drummin. However, by designing the facility to best international standards and by operating the facility under a Waste Licence to be issued by the EPA the potential for impacting on the environment is greatly reduced or eliminated in many instances. Also, the implementation of a range of mitigation measures will ensure that the facility can be constructed and operated without causing nuisance to the local environment.

There will be no significant effect on climate from the proposed development

A detailed study of the potential air quality impacts including a dispersion modelling assessment of the proposed development is presented in the full body of the EIS. The primary potential odour source has been identified as the emission point (stack) from the Phase 1 composting building. Other sources to include potential air emissions from the water tanks, from the Phase II and Phase III processes and from the wetted bales are considered minor potential sources.

The dispersion modelling assessment has demonstrated that the adopted odour annoyance criterion of ≤6.0ou<sub>E</sub>/m<sup>3</sup> for the 8<sup>th</sup> percentile will not be perceived at any sensitive receptor beyond the boundary including the nearest sensitive receptor located at the north-west of the site. In summary, the impact of odorous emissions from the proposed Phase I composting process will not be significance.

Potential dust emissions will be mitigated by handling all operations indoors, use of wheelwashes and power sweeping and washing the open yard on a regular basis.

Carrying out all composting activities internally provides significant noise abatement for the process. The Phase I composting process will be relocated to the northeast corner of the site. This places the noisiest on site sources, i.e bale blender and

front shovel loaders as far as possible from the nearest noise sensitive receptor.

Additional measures include keeping the main entrances/exits to the reception hall closed except when necessary, use of modern plant and equipment which include silencers and other noise reduction measures including the planting of shrubs and trees etc. The site will be operational 24 hours a day seven days a week as composting is a continuous process. Traffic in and out of the site will be from 5am to 10pm, diluting delivery traffic over a long day reducing the overall impact of traffic noise. Much of the existing noise is generated from traffic on the R403. Taking into account the existing noise levels at the nearest noise sensitive receptors and the predicted noise levels from the site operations it is likely that there will be no significant impact due to the proposed development.

There will be no significant impact on Soils or geology.

There is a very minor potential to impact on both groundwater and surface waters from the proposed development. Potential impacts could arise from soiled water drainage, oil spills/leakages, floor washdown and sewage management. The potential for leachate generation will be completely controlled by all composting activities being carried out inside a fully contained building. In this way there will be no potential for rainfall to gain access to compost materials and therefore seepage or leachate from these materials will be limited. Any leachate generated from composting activities will be

fully contained, collected and directed to the new water storage tank (tank B) for reuse on site in the composting process.

All oil/fuel tanks will be stored in concrete bunds with a capacity of 110% of the largest tank contained within. All pipes, valves and connections to the tanks will be located inside the bunds. A ramped concrete apron will be located adjacent to each bund to ensure that any spillages that may occur during loading/unloading of oil will be contained. Oil spill kits consisting of oil absorbent mats and booms will be stored at the site to deal with small spills should they occur. The bunds will be covered in by a canopy which will prevent rainfall from filling oilse hat the oilse the bunds. These mitigation measures will be covered in storage facilities on site.

Sewage effluent for the stored in concrete bunds will be stored and inside the bunds. All pipes, valves and to tank contained within. All pipes, valves and tank contained within. All pipes, valves and to tank contained within. All pipes, valves and contained within. All pipes, valves and contained within tanks will be located adjacent to each bund to each bund

Sewage effluent from the offices, canteens, toilets and washrooms will be collected and sewered to the septic tank located along the northern boundary of the facility. The effluent will be pumped from here to the new water storage tank (tank B) for use in the composting process.

The operation of the facility as proposed will not significantly impact on local flora or fauna. The provision of screen planting along the western boundary with native indigenous species will provide a minor beneficial impact in terms of habitats. The proposed set back of the western boundary to facilitate traffic sightline requirements will involve the removal of the existing hedgerow but it is anticipated that with time the new

planting of indigenous species along the new boundary will be beneficial to local fauna.

Potential impacts to the local residential community include impacts from traffic, noise, dust, litter, odours, visual intrusion, vermin, groundwater and surface water. All of these elements are detailed in the EIS and indicate little or no impact on the local community. The facility will continue to provide employment and will require external services and this will provide a positive impact in terms of the local economy.

Vehicular access to the site will be revised to a single new access point and upgraded existing access on the R403 Regional Road. The proposed development will generate a maximum of approximately 150 vehicles per day which represents 2-3% of the 2006 AADT (4400-5300 vehicles per day).

It is envisaged that approximately 44% of all incoming HGV traffic will access the site from the north with 56% coming from the south and 72% of all outgoing HGV traffic will turn north onto the R403 with 28% turning south. As outlined in Section 4.9 this additional traffic. which amounts to approximately 50 extra vehicles (30 cars, 20 HGV per day over existing generation) travelling to and from the site each day, will be easily absorbed into the existing road network without significant impact on capacity or safety.

The site will be open for the export of compost from 0500 to 2200 hrs. Monday to

Saturday. Raw materials will be imported from 0600 to 2000 hrs. Monday to Friday and 0800 to 1300 hrs. Saturday. No raw materials are imported on a Sunday. Site operations are carried out from 0600 to 2000 hrs. seven days a week and mushrooms are exported seven days a week. This time period will allow the site associated traffic to be distributed out over a longer time period than the typical working day and therefore effect a reduced hourly traffic generation rate. In particular, it will allow minimisation of truck movements during the morning and evening rush hours.

The proposed closure of three existing site entrances exits and alteration and improvement of the existing Access 3 and the construction of a new entrance/exit, both NRA: Design Manual for Roads and Bridges standards will represent a net safety improvement for all road users at this location on the R403.

The proposed redevelopment has the potential to impact on the local landscape character as there will be new buildings constructed to replace some of the older buildings. However, it is expected that there will be no great change to the local landscape character as a whole and therefore potential impacts on the general landscape character are expected to be low. There will be fewer new constructed than old ones demolished and each will be finished with side walls and roofs sympathetic to the environment in terms of texture and colour. The rough blockwork evident in the old existing

buildings will be replaced with a smooth concrete exterior and the tegral roofs will be finished in a colour that will blend in with the local environment and can be agreed with the local authority in advance construction. The construction of a new air emissions stack at a height of 17.5 m will perhaps provide a potential for impact as this will constitute the highest point in the redevelopment. It is submitted that the stack at a height of 17.5 m is not excessively high and its location in the northeast corner of the site removes it as far as possible from the nearest sensitive receptors and the

The impact on the cultural heritage of the site and environs by this development will be negligible. It is likely that if any archaeological remains were present on the there existing site they have been destroyed by pre-existing development.

In summary the

In summary, the existing site will be redeveloped and the proposed facility constructed in accordance with all relevant Regulations and Guidelines, using best practices, and in some cases comprehensive mitigation measures put in place in order to minimise any possible impact on the local environment. The EIS has detailed all potential impacts on the environment, the mitigation measures proposed and has concluded that it is likely that there will be no significant effect on the local environment arising out of the proposed development of the composting facility at Drummin, Derrinturn, Co Kildare.

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