ENVIRONMENTAL IMPACT STATEMENT

FOR

INCREASE IN WASTE CAPACITY

AT

TED O' DONOGHUE & SONS WASTE DISPOSAL FACILITY KNOCKPOGE, WATERFALL,

CO. CORK

VOLUME 1 OF 3

Non-Technical Summary

Prepared by:

Glenside Environmental 24 The Heathers Classes Lake Ballincollig Cork.

TABLE OF CONTENTS

		<u>PAG</u>	E			
1.	INTF	RODUCTION	1			
	1.1. 1.2. 1.3. 1.4. 1.5.	OVERVIEW OF THE PROPOSED DEVELOPMENT REQUIREMENTS FOR AN EIS LOCATION AND SETTING SITE FACILITIES SUMMARY	1 2 2			
2.	ALT	ERNATIVES	3			
	2.1.	INTRODUCTION	3			
3.	SITE	DESCRIPTION & WASTE QUANTITIES	3			
	3.1.	WASTE QUANTITIES AND RECOVERY AT FACILITY	3			
4.	4. TRAFFIC					
	4.1. 4.2.	INTRODUCTION				
5.	GEO	LOGY & HYDROGEOLOGY	5			
	5.1. 5.1.2 5.2.1 5.2.2 5.3.	2. Groundwater Quality ASSESSMENT OF IMPACTS 1. Surface Water	5 5 6 6			
6.	AIR	QUALITY & CLIMATE	6			
	6.1. 6.2.	EXISTING AIR QUALITY ENVIRONMENT				
7.	NOIS	SE	7			
	7.1. 7.2. 7.3. 7.3.1	Introduction Existing Environment Potential Impacts Operational Noise. Mitigation	7 7 <i>7</i>			
8.	ECO	LOGY	8			
	8.1. 8.2. <i>8.2.1</i> 8.3.	INTRODUCTION POTENTIAL ECOLOGICAL IMPACTS 1. Designated Sites MITIGATION MEASURES	8 8			
9.	LAN	DSCAPE & VISUAL IMPACT1	0			
	9.1.	SITE DESCRIPTION/LANDSCAPE CHARACTER	0			

	9.1.	1.	Environmental Impacts	10
10.	II	MPAC	CT ON HUMAN BEINGS	10
1	0.1.	Рот	ENTIAL IMPACTS	11
	10.1	1.1.	Operational Impact	11
1	0.2.	Res	IDUAL IMPACTS	11
1	0.3.	Nuis	SANCE CONTROL	11
	10.3	3.1.	Litter	
	10.3	3.2.	Noise	11
	10.3	3.3.	Dust	11
	10.3		Traffic	
1	0.4.	Odo	DURS	12
1	0.5.		LTH & SAFETY	
1	0.6.	RES	IDUAL IMPACTS	12
11.	Δ	RCH	AEOLOGY & CULTURAL HERITAGE	13
1	1.1.	Рот	ENTIAL IMPACTS	13
1	1.2.	Міті	GATION MEASURES	13
12.	N	IATUF	RAL RESOURCES	13
1:	2.1.	Intr	RODUCTION	13
1:	2.2.	Res	IDUAL IMPACTS	13
13.	C	VER	ALL CONCLUSION	14

1. INTRODUCTION

1.1. Overview of the Proposed Development

Ted O' Donoghue & Sons Ltd currently operates a waste management and recycling centre at Knockpoge, Waterfall, Co Cork. The company has provided a dedicated waste management service to the Cork region for almost 20 years. The facility currently processes dry non-hazardous waste. The waste is delivered to the facility where recyclables such as paper, steel, wood, plastics, cardboard, glass, green waste and construction and demolition (C&D) waste are segregated, with the residual non-recyclable waste being transferred to landfill.

The facility serves the greater Cork region and is primarily used as a recycling centre for commercial, industrial, household and construction and demolition material. The management propose to increase the waste handling capacity onsite in order to meet the increase need for recycling infrastructure in the Cork region. 31,027 tonnes of waste was accepted at the facility in 2007. A total of 9,374 tonnes of waste was sent to Youghal Landfill for disposal in 2007. This equates to a recovery rate in the Ted O Donoghue facility of 68.8%.

There is no proposal in this application to construct any new infrastructure on the existing facility. The application refers only to an increase in tonnages and to apply to the EPA for use of the facility to accept private vehicles.

Ted O' Donoghue & Sons Ltd. is seeking a **review of their Waste Licence** (WL0147-01) the EPA. The application for the review of the waste licence is to seek approval from the EPA for the following:

- Increase the annual tonnages from current licensed figure of 23,000 tonnes to 60,000 tonnes per annum;
- Use of the facility as a civic amenity centre to cater for the needs of private vehicles

The Company is optimistic that it can expand its business and operations and is now applying to Cork County Council for Planning Permission and to the Environmental Protection Agency (EPA) for a review of the current waste licence to process 60,000 tonnes of waste at the facility. This volume is required to cater for the existing and future needs of the business looking ahead to ten years hence.

1.2. Requirements for an EIS

This Environmental Impact Statement has been carried out in accordance with Part II of the First Schedule of the European Communities (Environmental Impact Assessment Regulations 1989) and the Planning & Development Act, 2000 as amended by the Planning & Development Regulations, 2001, (S.I. 600 of 2001).

The Planning & Development Regulations 2001 indicate when an EIS is required. In this regard Schedule 5 of the Planning & Development Regulations indicate "Other Projects:

installation for the disposal of waste with an annual intake greater than 25 000 tonnes not included in Part 1 of the Schedule" also require an EIS (Schedule 5 Part 11(b).

1.3. Location and Setting

Ted O' Donoghue & Sons Ltd Waste Disposal premises is situated approximately 6.5km from Bishopstown, south-west of Cork City in a rural setting. The facility is approximately 3 miles from Crossbarry. The site is located behind the family residence.

Waste Management facilities such as the Ted O Donoghue & Sons Waste Disposal at Knockpoge, Waterfall form an important part of the overall waste management process in Cork. Such facilities have two roles to play. The main function is to remove recyclable materials from the main waste stream as the first step in the recycling process, resulting in a product which can pass the quality requirements of reprocessing facilities. The second function is to bulk up non-recyclable waste onto large bulk haulage trailers to reduce the number of vehicles travelling to off-site recovery facilities (e.g. energy recovery plants).

1.4. Site Facilities

The main features of the existing development are as follows:

- · Waste recycling and transfer building
- · Administrative office building
- Canteen
- Skip storage areas
- Truck parking area
- · Ancillary features including roads, sewerage and surface water drainage
- Bale storage area
- Improved site entrance
- Landscaping measures

The primary function of new recycling and transfer building will be to segregate greater quantities of waste for recycling purposes. The building will also be used to bulk up the residual waste that is unsuitable (either technically or economically) for recycling. The company intends to take advantage of any new technology that will emerge which could increase recycling and recovery of waste materials. Planning permission has been sought and obtained for the extension of the existing building for the storage of recyclables on 30th March 2007. Details of the planning permission are contained in Section 1, Volume 3 of the EIS.

1.5. Summary

To summarise the proposed development fulfils the objectives of local, Regional, National and EU Policy in relation to waste management and in particular the provision of waste infrastructure in achieving waste recycling/recovery targets.

2. ALTERNATIVES

2.1. Introduction

The nature of the proposed facility can be termed as "light industry" and therefore should ideally be located in an accommodating setting that will reflect this. The most important criteria in locating the waste management centre were:

- Proximity to waste arising;
- · Good access:
- Good separation from residential areas;
- Scope for further expansion/development;
- Access to recycling markets, and disposal facilities.

The facility is industrial by nature and ideally should be located in an industrial estate. The three most important criteria in locating a waste management centre such as this are:

- proximity to waste arising,
- access to recycling markets, and
- access to disposal facilities.

3. SITE DESCRIPTION & WASTE QUANTITIES

3.1. Waste Quantities and Recovery at Facility

Waste records are available for the facility since 2003 and have been illustrated below in Figure 4.2 below. The chart shows that waste volumes have increased significantly since 2004 from a figure of 15,138 tonnes to 29,911 tonnes in 2007. Figure 4.1 details the proposed tonnages to be accepted at the facility in 2015 and Figure 4.2 details the breakdown of material accepted at the facility in 2007.

A total of 31,027 tonnes of waste was accepted at the facility in 2007 with 31,027 tonnes being removed. The difference in tonnages is explained by the removal of soil from the site. Tables in Volume 3, Section 4 of the EIS show the waste inloads and loads to and from the facility. A total of 9,374 tonnes of waste was sent to Youghal Landfill for disposal in 2007. This equates to a recovery rate in the Ted O Donoghue facility of 68.8%.

Table 3.1: Proposed Waste Types and Quantities to be accepted at Facility (2015)

WASTE TYPE	2007 TONNES PER ANNUM (as per EPA Licence)	PROPOSED TONNES PER ANNUM
Household	12,880	30,000
Commercial	1,840	6,600
Construction and Demolition (C&D)	7,514	19,602
Industrial Non-Hazardous Solids	766	3,798
Total	23,000	60,000

The above figures have been estimated from a breakdown of the typical waste quantities accepted at the facility in 2007 and projected growth. It is not currently possible to accurately predict the future waste qualities to be accepted at the facility. Figure 4.1 indicates that C&D waste accounts for 41% of the total waste accepted in 2007. A downturn in construction related activity would significantly impact on the future projections of this waste type. It is therefore difficult to accurately predict future trends in waste acceptance at the facility.

To allow for the facility to operate within the scope of any future licence granted by the Agency for 7 years, it is considered appropriate to apply for an increase in tonnages up to 60,000 tonnes per annum.

Types of Waste Accepted:

The following are the main types of waste accepted at the facility in Knockpoge:

- 1. Mixed Construction & Demolition Waste
- 2. Mixed Municipal Waste (Household and Commercial Wheeled Bins).
- 3. Commercial & Industrial Waste (Skips), and.
- 4. Domestic Waste (Household Skips)

4. TRAFFIC

4.1. Introduction

Roadplan Consulting has been commissioned by Glenside Environmental on behalf of Ted O' Donoghue & Sons to prepare a Traffic Impact Assessment of the proposed extension to the existing waste transfer facility at Waterfall, Co. Cork. In preparing this report, Roadplan Consultancy has made reference to:

- The 'Cork County Development Plan 2003',
- 'The Institute of Highways and Transportation Guidelines on the Preparation of Traffic Impact Assessments',

- NRA "Future Traffic Forecasts 2002 to 2040"
- NRA "Transport Assessment Guidelines".

4.2. Summary and Conclusions

The main conclusions of this study are summarised as follows:

- The existing development access will be able to operate with no queues and minimal delays with the proposed extension to the development in 2013 and 2023.
- The development provides at least one car parking space for each employee.

5. GEOLOGY & HYDROGEOLOGY

5.1. Surface Water – Hydrology

The closest hydrological feature is a stream approximately 100 m east of the site boundary. This stream forms part of the headwaters of the Curraheen River. A land drain, which periodically receives small quantities of runoff from the development, lies to the east of the site. The catchment area for the Curraheen River is shown in the Figure below.

5.1.1. Surface Water Quality

The surface water quality is assessed by analysis of grab water samples from the land drain (SW1), and a point upstream (SW2) and downstream (SW3) of where the land drain discharges into the Curraheen stream.

In general water quality results indicate that the water quality of the land drain is slightly impacted, but this impact is diluted to normal levels upon entry into the Curraheen River.

5.1.2. Groundwater Quality

A groundwater sample was collected from the on-site well on 02 April 2008, to determine the local groundwater quality.

The groundwater is typical of a soft groundwater hosted in a sandstone/shale bedrock. The results indicate a slightly elevated nitrate levels at the groundwater well, and this is attributable to agricultural activities in the general area. There is no indication of contamination emanating from the waste transfer station.

5.2. Assessment of Impacts

The main potential direct impact of the facility is the release of leachate from waste-bearing areas to the local aquatic environment.

5.2.1. Surface Water

Surface water generated within the site is controlled according to the level of risk it poses, as discussed. Measures are in place to remove leachate-impacted water from an underground storage tank by tankering. Rainwater incident on the shed roof is diverted via a holding tank to the local land drain. Appropriate management of storage tanks should therefore result in a low risk to the aquatic environment.

5.2.2. Groundwater

A similar risk is posed to groundwater as that posed to surface water, i.e. the risk of accidental release of leachate to groundwater. The appropriate construction and maintenance of the underground storage tank will ensure a continued low risk to groundwater.

Risks from fuel/hydrocarbon spillage can be minimised by use of dedicated hardstanding areas for refuelling/repairs, and the bunding and maintenance of fuel tanks.

5.3. Mitigation

- All chemicals and petroleum-based products and chemicals are to be stored on spill pallets or similar.
- No mechanical repairs shall take place outside of paved areas.
- An Emergency Response Kit shall be kept on site to prevent any leaks of petroleumbased products from reaching the watercourse.

6. AIR QUALITY & CLIMATE

6.1. Existing Air Quality Environment

A baseline air quality survey was carried out in June/July 2008 to establish the existing air quality conditions. The results of this survey are presented in the tables below. An interpretation of the results is also included.

6.2. Predicted Impacts on Air Quality

As there is no waste deposited on the site, there is no potential for the build up of methane and landfill gas. Consequently, the odours and emissions from a landfill gas flare unit will not be generated at the proposed development.

The operators of the existing facility operate under a waste licence issued by the EPA. Consequently the EPA will require a level of operation that will not impinge on the surrounding environment and decide on the extent and nature of any environmental monitoring (e.g. dust

or odours) to be carried out. Any complaints arising during the operation of the proposed facility regarding an environmental nuisance will be logged by the EPA who will require corrective action to remove the source of that nuisance.

Emissions of pollutants from road traffic can be controlled by either controlling the number of road users or by controlling the flow of traffic. For the majority of vehicle-generated pollutants, emissions rise as speed drops, although the opposite is true for oxides of nitrogen. Emissions are also higher under stop-start conditions when compared with steady speed driving. The free flow of the traffic as a result of the scheme is essential in order to minimise the generation of traffic related pollutants.

7. NOISE

7.1. Introduction

Glenside Environmental carried out a Noise Impact Assessment of the proposed development at Knockpoge, Waterfall, Cork. The study was undertaken in April 2008. This chapter summarises the main report and identifies, describes and assesses the impact of the proposed development in terms of its impact on noise on the surrounding environment particularly at residential areas adjacent to the site.

7.2. Existing Environment

The location of the facility is generally within a rural environment with a number of residences located within 400m close to the access road. Local traffic is considered to be the main source noise source. A baseline noise survey was carried out on the 24th April 2008 to establish the existing noise climate throughout the daytime periods within and surrounding the site boundary.

7.3. Potential Impacts

7.3.1. Operational Noise

Noise monitoring is undertaken annually at local noise sensitive locations. The operational sources of noise impact associated with the development will be additional vehicles on the existing road system, vehicle movements within the site and noise from the operation if the site.

7.3.1.1. Road Traffic

A traffic assessment has been carried out by *RoadPlan* of current and predicated flows at the site assuming a worse case scenario of the site operating at full capacity.

Traffic noise levels on surrounding routes during the maximum acceptance of waste tonnages are predicted to increase by a maximum of 3dB during AM peak hour flows. In subjective terms, this increase is not considered to be significant.

7.3.1.2. Waste Transfer Facility

The operation of the waste transfer facility will involve the delivery, sorting, bailing and storing of waste materials. Each on-site process has the potential for noise generation. The combined noise level from all sources operating within the facility has been assessed assuming all machinery is operating simultaneously for 100% of the time.

The building structure therefore if constructed of similar form to the type above will achieve the attenuation required. Modern building designs however are likely to exceed these specifications.

7.4. Mitigation

Of the likely impacts described above, the greatest potential impact will be from increased traffic flows.

The results of the on-going monitoring at the facility indicate that noise within the area is resulting predominantly traffic noise. The levels of noise coming from the facility at the noise sensitive receptor were insignificant in comparison to traffic noise and these locations. It is therefore concluded that the any noise generated at the facility will not have any undesirable impacts on the existing neighbouring noise environment.

Not withstanding that good operational practices at the facility will be maintained to ensure no noise nuisances are caused as a result of the workings of the facility.

8. ECOLOGY

8.1. Introduction

The purpose of this report is to assess the impacts of current and future works on the surrounding ecology and to identify appropriate mitigation measures and any further studies that may be required.

8.2. Potential Ecological Impacts

8.2.1. <u>Designated Sites</u>

The waste transfer station is not situated within any designated sites or within 3km of any designated sites. There are no cSACs or SPAs within 5km of the site. There is one pNHA within 5km of the site, namely Ballincollig Cave pNHA (001249). Due to nature of operations and the distance from designated sites there is no potential for direct impacts to designated sites.

Similarly due to the distance from designated sites, the nature of operations and provided the limits of the license in relation to groundwater and surface water are adhered to there are is no potential for indirect impacts to watercourses of designated sites.

Therefore impacts to designated sites is expected to be No Change.

Habitats

There will be no loss of habitats outside the site boundary.

Flora and Fauna

There was no evidence of protected mammals on site therefore impacts of the proposed works on terrestrial mammals is considered to have No Change to mammals.

No impacts are predicted to bats from the proposed development as no trees will be lost and no buildings will be demolished.

No protected flora species were recorded on site during the survey in April 2008 and provided there will be no direct loss of any habitats, therefore the overall impact to flora is considered as No Change.

8.2.1.1. Other Potential Impacts

There is the potential for indirect impacts to surface waters of the Curaheen river through runoff to the stream to the east of the site which is connected to the river. However the main channel of the Curaheen River is situated over 3km from the site. In addition wash water and domestic effluent generated from the offices and toilets pass through a proprietary unit before passing onto percolation.

8.3. Mitigation Measures

The following mitigation measures are proposed to prevent any potential impacts to the environment.

Fuel tanks with bunding should be maintained and used on the site. Diesel fuel required for the operation of the various plant and processing equipment on-site should be stored in tanks in a bunded area. No pipes should pass through the bund wall, which will further reduce the potential for leakage.

Any construction machinery should be maintained in good operational order while on-site, minimising the risk of any pollution incidences arising from leaking vehicles or machinery, and/or emissions to the atmosphere.

No mechanical repairs should take place outside paved areas.

Chemicals should be stored on spill pallets or in chemical storage units.

An emergency response kit should be kept on site to prevent any leaks of petroleum based products entering watercourses.

9. LANDSCAPE & VISUAL IMPACT

9.1. Site Description/Landscape Character

The site is located in rural hinterland south of Cork city. The site is relatively elevated, lying on one of the westerly-running line of hills that frame the Lee valley. The site itself is relatively flat and at an elevation of about 170mOD.

There are no streams within the site area. A small stream forming part of the headwaters of the Curraheen River flows approximately 100 m east of the site. Land use within the application area is generally agricultural.

The facility is situated on the northern outskirts of the town of. The site is' situated within an agricultural area with the nearest residential area located approximately 300m south of the facility. The site is accessed via the. The facility is situated adjacent to the southern side of this cul-de-sac and is accessed via one of 3 No. entrance ways.

9.1.1. Environmental Impacts

It is considered that the site does not visually impact on residential areas to the South and East of the site. As detailed visibility of the site is prevented by screening afforded by the disused quarry and established trees/shrubbery. The site boundaries of the facility are made up continue fencing with hedgerow and shrubs. As part of the EMS in place at the facility, ongoing landscaping of facility is carried out.

It is considered that no significant amenity value may be attached to the existing site or surrounding environs (site does not infringe on Views and Prospects to be Protected, Areas of High Natural Beauty and High Amenity or Areas of Scientific Interest, as detailed and illustrated in the County Development Plan).

10. IMPACT ON HUMAN BEINGS

Glenside Environmental carried out a study of the potential impacts associated with the proposed Sustainable Resource Recovery Facility on social and economic activity in the area. The study identifies the likely significant impacts to affect the social and economic functioning of the study area as a result of the proposed development Impacts are assessed and mitigation measures proposed. The social and economic aspects of the study have been appraised with particular attention given at a local level, but also on regional and sub-regional levels.

10.1. Potential Impacts

The potential impacts of the operation and construction of the proposed development are presented in this section.

10.1.1. Operational Impact

This section addresses the regional, sub-regional and local socio-economic impacts of the proposed development when it is operational. The impacts are examined under the headings:

- · Regional impact;
- Sub-Regional impact;
- Local impact on communities;
- Impact on local community/amenity facilities;
- Impact on the local economy;
- Local impact on road users;
- Local impact on traffic volumes;

10.2. Residual Impacts

The reduction of waste going to landfill brought about by the completion of the proposed development will have a positive impact at national, regional, sub-regional and local level. With the implementation of the mitigation measures suggested in this report, the socio-economic advantages of the proposed facility will outnumber the disadvantages. No residual impacts on socio-economic functioning are anticipated once all suggested mitigation measures are put in place.

10.3. Nuisance Control

10.3.1. Litter

Windblown litter either from the facility, or from vehicles travelling to and from the site, may become unpleasant and classified as a nuisance. Dry, light waste material can be blown from trucks or from the tipping area of the facility. Waste is baled, wrapped securely and placed in enclosed articulated lorries before exiting the facility, which will help reduce the impact of litter.

10.3.2. Noise

Elevated noise levels associated with day-to-day operations of the facility, especially due to vehicles and machinery in the unloading area would be expected. Vehicles to and from the proposed development will also be a source of noise.

10.3.3. Dust

Dry periods of weather can lead to the generation of dust. Dust is expected to be generated during the construction phase of the proposed development. During the operation phase waste deliveries will mainly consist of dry solid material, packaging etc. However the facility will also accept quantities of Construction and Demolition waste which has the potential to generate dust.

10.3.4. Traffic

The following measures can be used to mitigate against the impact of traffic.

Future improvements of roads may facilitate ease of traffic congestion.

- Ensuring the free flow of traffic into and out of the facility by widening the entrance road.
- Ensuring that there are adequate parking spaces on the site of the proposed development, when the tipping area is full, to prevent vehicles queuing on access roads causing congestion and safety concerns.
- Ensuring that the fleet is flexible to respond to the requirements of the local traffic network.
- Maintain a clean and well serviced fleet.

10.4. Odours

The potential for odour emissions are currently minimised by a series of design features, work practices and mitigation measures. Each of these measures is outlined briefly below:

- All waste handling operations are currently housed indoor.
- Use of shutter doors to minimise exposure to outside environment.
- Site layout has been designed to ensure any outdoor operations are as far as possible from the nearest sensitive receptors.
- Regular cleaning of all work surfaces and floors.
- Residence time for waste, including non-odorous is kept to a minimum before transfer.

10.5. Health & Safety

Health and safety issues will be covered by the Health and Safety plan for the proposed development.

10.6. Residual Impacts

No residual impacts on socio-economic functioning are anticipated once all suggested mitigation measures are put in place.

11. ARCHAEOLOGY & CULTURAL HERITAGE

11.1. Potential Impacts

As no recorded items of archaeology or cultural heritage have been recorded on the site or in the immediate vicinity it is not anticipated that any significant impacts will occur during the construction or operation of the proposed development. Areas that traditionally have archaeology potential such as bogs, drains/streams and larger watercourses are absent from the site of the proposed development. Given the location and nature of the site, and the fact that very little excavation is envisaged apart from laying of drains and services and in the area of the new waste building, it is not envisaged that the proposed development will impact on items of historical, archaeological or architectural significance or interest.

11.2. Mitigation Measures

No mitigation measures are required for the continued operation of the proposed development.

12. NATURAL RESOURCES

12.1. Introduction

This section of the EIS deals with the impact of the proposed development on Natural Resources. Natural Resources include excavatable materials as well as considering energy requirements for the new development.

12.2. Residual Impacts

As a result of the design features listed above and given the anticipated energy consumption requirements, it is not expected that the proposed development will have a significant negative impact on natural resources. The recovery and recycling of materials and subsequent diversion from landfill compensates for the consumption of energy for processing, lighting and heating purposes.

13. OVERALL CONCLUSION

Having regard to National Waste Policies, the Cork City and County Waste Management Plan, the Cork County Development Plan and the details outlined within this EIS, it can be concluded that the proposal to increase the tonnages to 60,000 tonnes by year 2015 will not have an adverse impact on the environment.

In terms of impacting on the local community, potential effects have been examined and mitigation measures advised to eliminate any potential serious environmental risks. Once regard is given to the EPA's Waste Licence for the proposed facility, negative environmental impacts will be minimised.

The facility has reclaimed 68% of the waste fraction received at the facility in 2007 from a total input of 29,991 tonnes. This reclaimed volume of 20,393 tonnes would have otherwise have ended up being disposed in landfill.

The ultimate result of the operation of this proposed development would be the diversion of waste material from landfill, which is no longer a viable and sustainable option, while helping Cork City and County achieve its recycling targets. The use of the facility for use by private vehicles will further increase recycling rates in the locality.