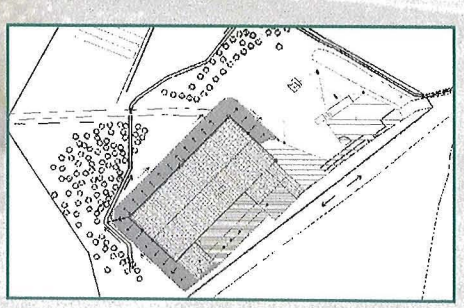
Environmental Impact Statement for Killarney Waste Disposal

Volume II : Main Report



January 2005

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ENVIRONMENTAL IMPACT STATEMENT

for

Killarney Waste Disposal Ltd

January 2005

VOLUME I NON-TECHNICAL SUMMARY

VOLUME II MAIN REPORT

VOLUME III TECHNICAL APPENDICES

Volume II

Main Report

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1. INTRODUCTION

1.1 PROPOSED DEVELOPMENT

Killarney Waste Disposal Ltd. (KWD) currently operate a Materials Recovery Facility in Aughacurreen, Killarney, Co. Kerry under a Waste Permit from Kerry County Council in accordance with the Waste Management (Permit) Regulations, 1998 (S.I. No. 165 1998) allowing an annual waste intake for recovery of 16,500 tonnes.

KWD propose to increase the waste intake at the facility to 40,000 tonnes per annum and provide an extension to the facility to incorporate a new MRF facility. Therefore an Environmental Impact Statement (EIS) is required together with the Waste Licence Application for the proposed increase in tonnage and facility development. It is in this context that this EIS has been prepared by RPS-MCOS Ltd. for Killarney Waste Disposal.

Environmental Impact Assessment (EIA) is a process for predicting the effects on the environment caused by a project development. An Environmental Impact Statement (EIS) is the document produced as a result of that process. Its purpose is to identify the environmental effects of the development and examine how these impacts can be avoided or reduced during the design process.

1.2 STRUCTURE OF THE REPORT

This EIS has followed the steps outlined in the Environmental Protection Agency's '*Guidelines on the Information to be contained in Environmental Impact Statements' and 'Advice Notes on Current Practice in the preparation of Environmental Impact Statements'* and the EIA 1999 Regulations (S.I. No. 93 of 1999).

Although the EIA Regulations do not contain any details about the exact form of an EIS, the information to be contained in an EIS is specified in the Second Schedule of the EIA Regulations (S.I. No. 93 of 1999).

This Environmental Impact Statement (EIS) follows the general format outlined below:

- Volume 1 – Non-Technical Summary
- Volume 2 – Main Report
- Volume 3 – Technical Appendices

The Non-Technical Summary (Volume 1) outlines the main findings of the EIS and emphasises the most significant of these. A simple matrix is also included which summarises the magnitude of the impacts.

The Main Report (Volume 2) follows the format outlined below:

Chapter 1 is an introduction to the project giving details of the project, the need for the project, alternatives examined including the 'Do Nothing' Scenario and legislative requirements.

Chapter 2 describes the proposed development to the facility and outlines the existing site layout, infrastructure and operation of the facility.

Chapter 3 addresses the existing environmental situation with an outline of the baseline studies conducted by specialist sub-consultants with the environmental aspects of the project falling under the category of either Human Beings or Natural Environment as follows:

Human Beings

- Community Effects & Material Assets
- Traffic
- Air Quality
- Noise & Vibrations

Natural Environment

- Geology, Hydrogeology
- Water Quality
- Terrestrial Flora & Fauna
- Landscape
- Archaeology & Cultural Heritage

Chapter 4 addresses the potential impacts of the development and highlights the mitigation measures that may be used to minimise negative impacts of the development.

Chapter 5 describes the interactions of effects.

Chapter 6 provides the conclusions and recommendations of this EIS. Each environmental discipline is addressed and the major impacts highlighted.

Volume 3 – Technical Appendices, contains individual environmental reports prepared by a number of specialist sub-consultants. As explained above the main issues arising from these reports have been described in Chapters 3 to 5 of the Main Report (Volume 2). Each sub-consultant and their particular discipline is identified below:

- Appendix A RPS-MCOS Ltd — Geology and Hydrogeology
- Appendix B RPS-MCOS Ltd — Archaeology and Cultural Heritage
- Appendix C RPS-MCOS Ltd — Landscape and Visual Assessment
- Appendix D Biospheric Engineering Ltd — Noise
- Appendix E Roger Goodwillie & Associates — Terrestrial Ecology
- Appendix F Conservation Services Ltd. — Aquatic Ecology
- Appendix G RPS-MCOS Ltd — Air Quality
- Appendix H RPS-MCOS Ltd — Traffic

1.3 THE PROJECT

1.3.1 Existing Facility

Killarney Waste Disposal (KWD) operate a Materials Recovery Facility at Aughacurreen 4.5km from Killarney Town. The site covers an area of 2.2 hectares in total. **Figure 1.1** shows the location of the facility.

1.3.1.2 Waste Quantities

A total of 16,500 tonnes per annum of non-hazardous waste is currently accepted by KWD. **Table 1.1** outlines details on the types and quantities of waste accepted as specified in the Waste

Permit. The facility currently accepts municipal waste arising in County Kerry from domestic and commercial sectors. KWD also provides its own collection service for its customers.

Table 1.1 Types/Quantities of Waste Accepted at KWD (as per Waste Permit WP/23/03)

Waste Type	Maximum Tonnes per Annum
Mixed municipal waste	8,000
Organic waste (kitchen and canteen waste)	1,000
Dry recyclable wastes	3,500
Construction and Demolition waste	4,000
Total Waste	**16,500**

1.3.1.3 Waste Acceptance

Drawing No. 02-034-J4-MCOS1 provide details on the Existing Site Layout Plan. Incoming waste is weighed on the weighbridge near the site entrance and the following information is recorded for site records:

- Description of the waste including waste types, composition, form and relevant EWC Code
- The origin of the waste including customer details
- The weight of the waste load.

Waste is then tipped into the Material Recovery Facility (MRF) and inspected prior to processing.

1.3.1.4 Waste Processing

The processing of each waste stream accepted below is described as follows:

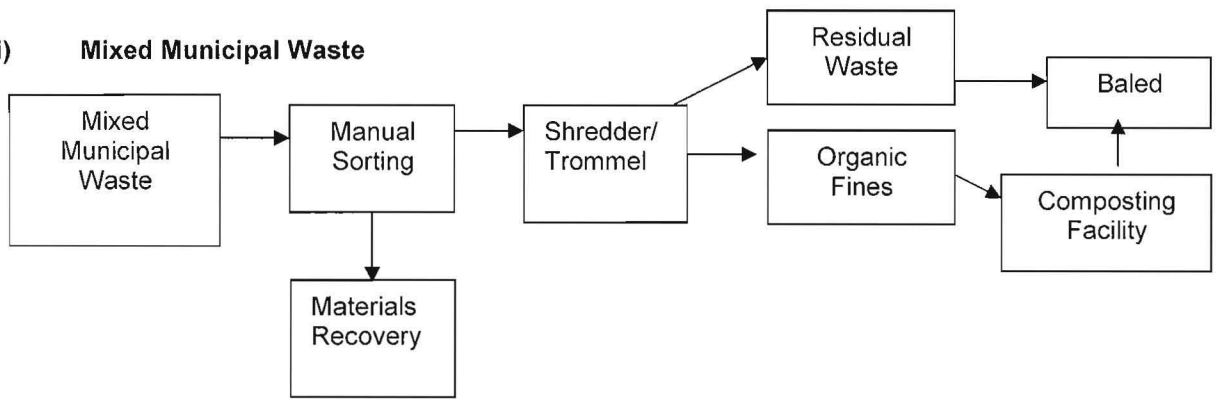
(i) Mixed municipal waste;

(ii) Source segregated waste, which includes organic waste and dry recyclables (plastic (bottles and film), paper, cardboard and packaging waste, glass, metals);

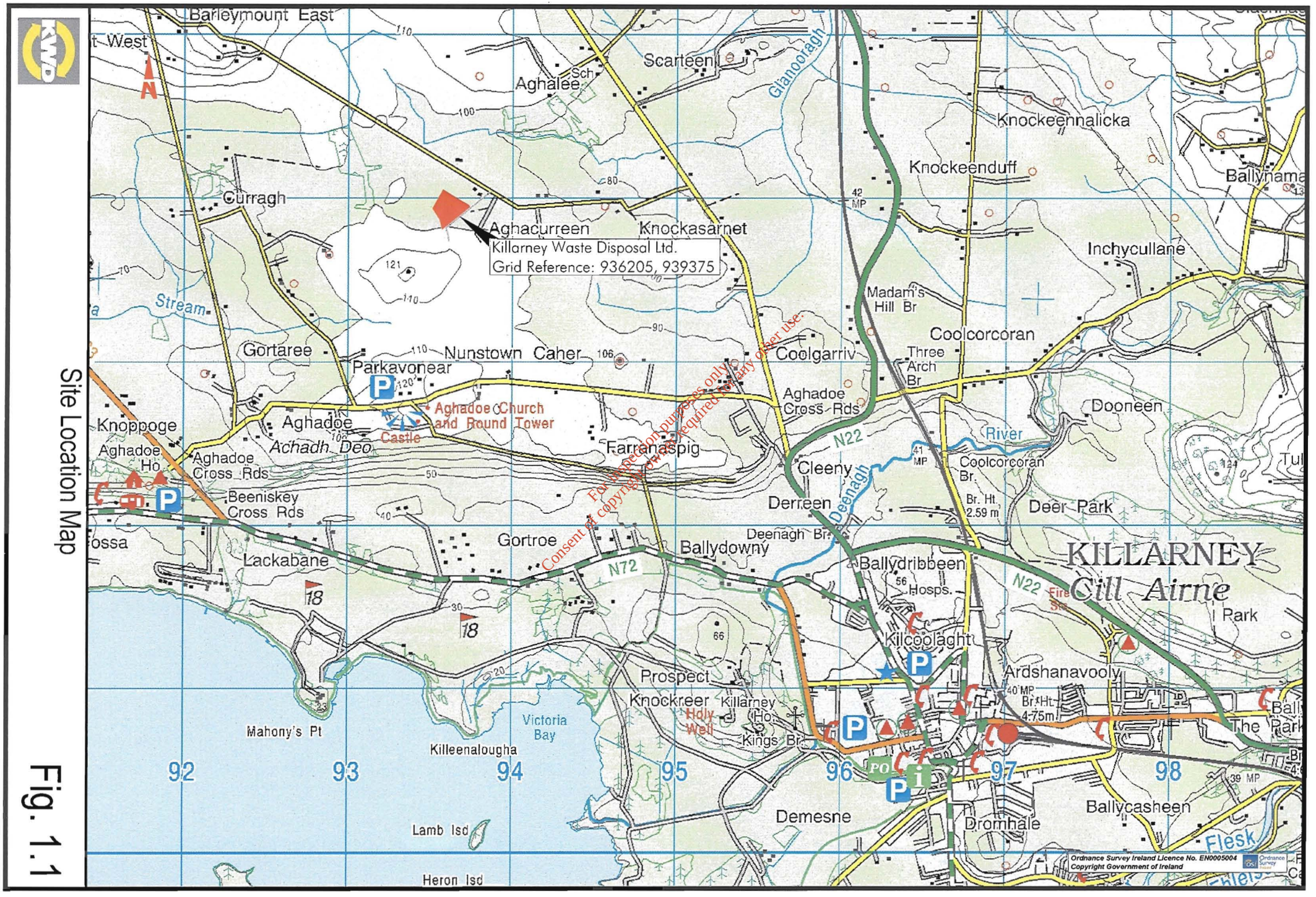
(iii) Wood;

(iv) Construction & Demolition waste.

(i) Mixed Municipal Waste



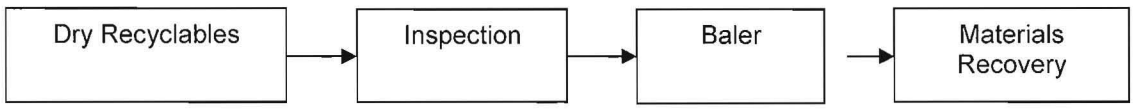
Mixed municipal waste is tipped onto the processing building floor for inspection and any hazardous waste is removed and placed in the quarantine area. Recoverable material is also segregated out. The remainder of the material is then transferred to a mechanical shredder. The



shredder cuts up the material and feeds it into a trommel machine. This machine is made up of a large screen which will separate out the finer organic particles from the rest of the residual mixed waste. The residual waste is removed from the trommel via a conveyor belt to a baler. The waste is compacted in the baler and wrapped in a plastic film to ensure that the bales remain intact. These bales are stored in the facility before being sent to landfill/energy recovery. The separated organic fraction of the waste is sent off-site for further processing at a composting facility.

(ii) a Municipal Waste Source Separated Dry Recyclables

Dry recyclables will require very little processing. The waste is tipped onto the floor of the processing building for inspection. Some of the waste is transferred to a conveyor belt which feeds the material into the baler which produces bales. Other waste types (metals, glass) are placed in storage skips. The waste is then transported off-site to licenced recovery facilities.

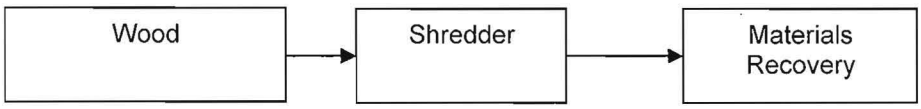


(ii) b Municipal Waste Source Separated Organic Waste

Organic waste (kitchen and canteen waste) that is delivered to the facility is inspected and then stored at the facility until a sufficient quantity is available for shipment to a composting plant for recovery.

(iii) Wood

Wood is stored in the storage area in a designated bay until a viable quantity has accumulated. Then it is put through the shredder which is currently located outside the existing processing building. The shredded wood is then transported to a recovery facility.



(iv) Construction & Demolition (C&D) Waste

C&D waste is tipped on the floor of the processing building where it is inspected and manually sorted into various fractions (metal, wood, plastic and rubble etc) which is then sent onto a materials recovery facility.

The processing of the mixed municipal waste produces an effluent. The existing processing shed drains to a holding tank of 4.55m^3 capacity. Approx. 6.8m^3 of effluent is produced per month based on outgoing weighbridge dockets from facility which is transported to Killarney WWTP for treatment. Stormwater runoff (yard drainage) from the concreted area drains to a pump pit behind the site offices from where it is pumped to a solids interceptor/separator for treatment. A lagoon, reed bed/wetland and percolation area are currently being constructed which will provide additional treatment for the runoff. The solids from the interceptor will be cleaned out when required and the sludge sent to a licenced treatment facility. A septic tank is being used for sewage treatment. It is proposed to install a Puraflo System to increase the treatment efficiency.

1.3.2 Proposed Development

Killarney Waste Disposal propose to apply for an increase in the allowable waste intake of 40,000 tonnes per annum and to extend the current MRF. A Waste Licence Application and EIS has been sent to the EPA in this regard.

1.4 THE NEED FOR THE PROJECT

The National Waste Database 2001 Report, published by the EPA in July 2003 describes the waste management situation in Ireland as being one in which the quantities of waste are increasing and the continuing high dependence on landfill and a deficit in infrastructure required to manage waste in Ireland. Recycling rates have increased, the waste industry is more regulated, waste statistics are becoming more accurate and the provision of waste infrastructure has improved. The generation of household waste increase by 20.3% between 1998 and 2001. Commercial waste generation increased by 53.3% largely due to the economic growth that has occurred in Ireland over the last few years. The Waste Management Plan for the Limerick/Clare/Kerry Region is currently under review.

The Waste Management Plan for the Limerick/Clare/Kerry Region (2000) recommended an integrated approach to waste management involving new recycling initiatives, biological and thermal treatment of wastes and finally landfill of residual waste. This Plan identified the total municipal waste arising in the Region by 2014 will be approximately 381,710 tonnes per annum. Future expansions for Material Recovery Facilities are necessary to achieve the recycling target of 37.1% which has been set for municipal waste in the Limerick/Clare/Kerry Region.

1.5 ALTERNATIVES

An alternative to the current proposed development is to carry on with the operations at the existing site at the current annual intake ('Do Nothing' Scenario). With waste quantities increasing the Limerick/Clare/Kerry Region waste will have to be sent directly to landfill due to the lack of additional waste sorting and recycling infrastructure in the Region which would mean that the recycling targets would not be achieved and a negative impact on the environment would result.

1.6 LEGISLATIVE REQUIREMENTS

1.6.1 Environmental Impact Assessment

The EIS has been prepared having regard to all relevant legislation and EU Directives including the Council Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the environment and as amended, the EU Directive implemented in Ireland through S.I. No. 349 of 1989 entitled European Communities (Environmental Impact Assessment) Regulations, 1989 and as amended and the Planning & Development Act 2000, as amended by the Planning & Development Regulations, 2001 (S.I. 600 of 2001). The EIS has been prepared based on the best available information at this time.

Schedule 5 of the Planning & Development Regulations, 2001 indicates when an EIS is required. In this regard Schedule 5 states that *"Other Projects: installations for the disposal of waste with an annual intake greater than 25,000 tonnes not included in Part 1 of the Schedule* require an EIS" *(Schedule 5 part 11 b)*. Although this development is a combination of recovery and disposal the increase in tonnage is significant and therefore it was considered to prepare an EIS as the local authority and the EPA would consider the development would be likely to have significant effects on the environment.

Moreover, Section 13 of the Waste Management (Licensing) Regulations, 2004 requires waste licence applications in respect of waste recovery or waste disposal activities specified under Article 93 of the Planning and Development Regulations be accompanied by an EIS, thereby also subjecting the proposed development to an EIS.

1.6.2 Waste Licence

The existing facility is operated by KWD under a Waste Permit from Kerry County Council. A Waste Licence application to include for the proposed increase in tonnage will be submitted to the EPA in accordance with Section 42 of the Waste Management Act, 1996 as amended and the Waste Management (Licensing) Regulations, 2004. In accordance with these Regulations an EIS is required for submission to the EPA in part fulfilment of the Waste Licence Application.

1.7 CONSULTATION PROCESS

In accordance with Section 18(1) of the Waste Management Licensing Regulations, 2004 (S.I. No. 395 of 1997) the EPA are required to submit copies of the EIS to a number of certain public authorities and bodies including the following:

- An Taisce,
- Kerry County Council,
- Minister of the Environment, Heritage and Local Government,
- Minister for Communications, Marine and Natural Resources,
- The Central Fisheries Board,
- Southern Health Board,
- National Authority for Occupational Safety and Health,
- Fáilte Ireland,
- Teagasc.

In this regard, any persons wishing to make a written submission regarding the Waste Licence Application should write to the following address within a period of one month following the making available of documents for inspection:

The Environmental Protection Agency
P.O. Box 3000,

Johnstown Castle Estate,
Co. Wexford

In accordance with Section 15 of the Waste Management (Licensing) Regulations, 2004 the Agency *'… shall not give notice of a proposed decision under section 42(2) of the Act before the expiry of a period of one month…..".*

The Waste Management (Licensing) Regulations 2004 require that a notice with respect to the EIS be published in local/national newspapers and also that a notice be erected on site. The EIS and Waste Licence Application will also be available for inspection at the EPA.

1.9 DIFFICULTIES ENCOUNTERED DURING THE ASSESSMENT

There were no difficulties encountered during the assessment of this project.

2. PROPOSED DEVELOPMENT

Killarney Waste Disposal propose to apply for an increase in the allowable waste intake of 40,000 tonnes per annum as shown in Table 2.1. The existing operations will remain the same as outlined in Section 1.3.1.

Table 2.1 Proposed Types/Quantities of Waste to be Accepted at KWD

Waste Type	Maximum Tonnes per Annum
Mixed municipal waste	15,000
Organic waste (kitchen and canteen waste)	2,400
Dry recyclable wastes	5,600
Construction and Demolition waste	17,000
Total Waste	**40,000**

Drawing No. 02-034-J4-MCOS2 Proposed Site Layout Plan and Drawing No. DG0002-01 provides details on a layout for the extension to the MRF building on site. It should be noted that the proposed layout is indicative and may change depending on machinery sizes and operational techniques.

The new building has been designed with a maximum number of access points to facilitate delivery and loading of waste to and from the building. There are 5 no. entrances to the new building. It is proposed to build an on-site access road around the perimeter of this building. The extension will be provided on the existing site which is 2.2 hectares in size. The existing Material Recovery Facility will be extended by 2,503 sq.m to a total size of 3,223 sq.m and will not exceed the existing structure's height (ridgeline is 9.45m above foundation ground level). A stream which is located on site has already been diverted.

A designated quarantine area has been identified and any consignment will be removed to the quarantine area for further inspection and if non-compliant will be returned to the customer.

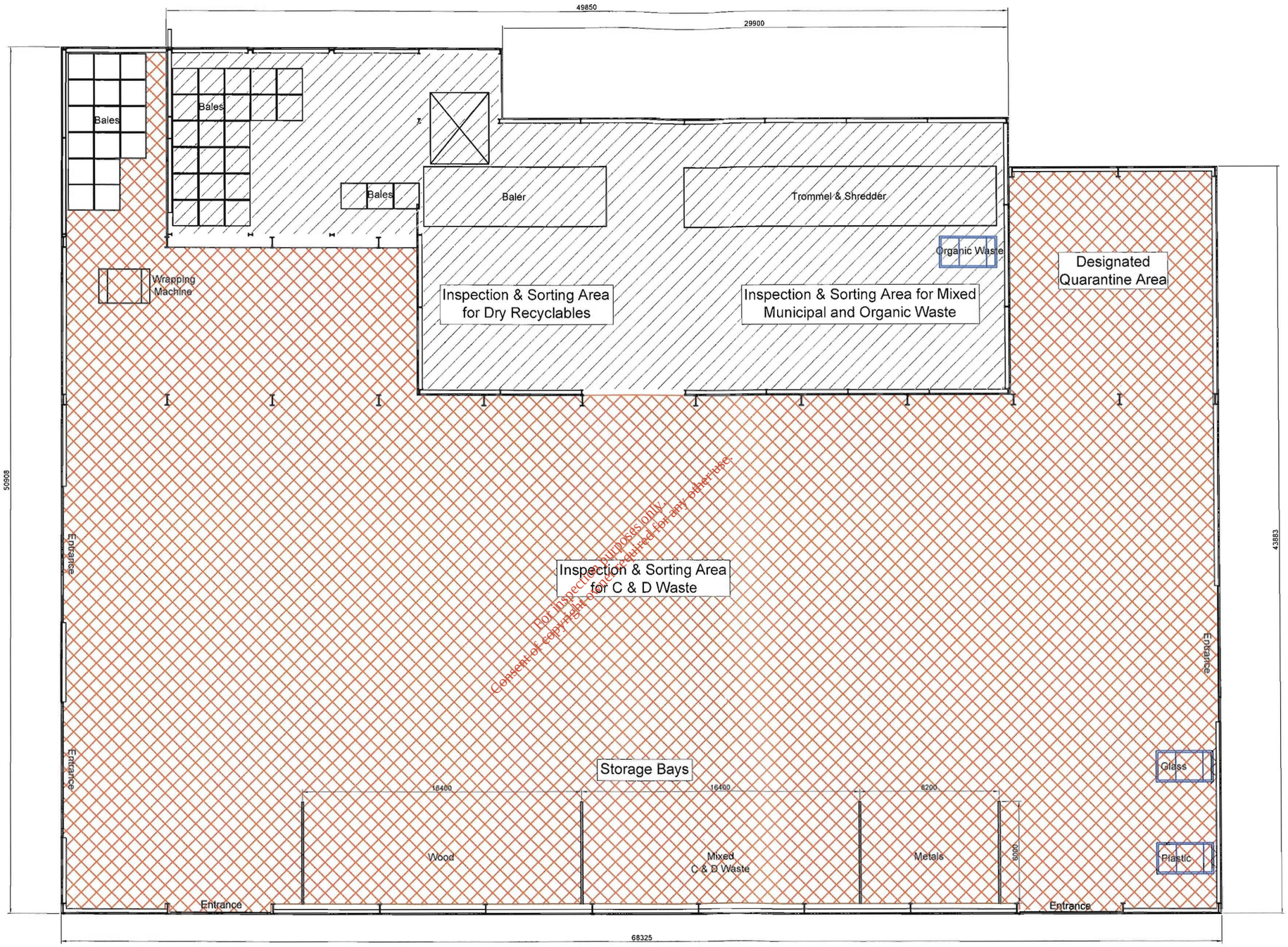
The processing of the mixed municipal waste produces an effluent. The existing processing shed drains to a holding tank of 4.55m^3 capacity. Approx. 6.8m^3 of effluent is produced per month based on outgoing weighbridge dockets from facility. The effluent is stored in the holding tank and transported to Killarney WWTP for treatment. The new processing building will have a similar effluent collection system.

A stormwater treatment system is proposed on site. An interceptor for oil and solids separation is currently in operation on site and it is proposed to direct stormwater runoff from the interceptor to a lagoon and then to a reed bed which will discharge the treated stormwater to a percolation area. Drawing No. 02-034-J4-MCOS2 Proposed Site Layout Plan provides details on the layout of the stormwater treatment system.

A septic tank is in use on site and a Puraflo system is proposed, which will be designed to cater for 12 people at 180 litres per person per day. This equates to a discharge quantity of 2.16 cubic metres per day to be treated by the system. Roof water runoff from the proposed shed will drain to the stream as shown on Drawing No. 02-034-J4-MCOS2 Proposed Site Layout Plan.

Figure 2.1: Waste Processing Activities

Figure 2.2: Outgoing Waste Shipment



KWD RECYCLING

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No.	Date	Dft. / Ck.	Amendment / Issue	App.
F01	01/02/05	C.N. / S.A.	Final Issue	W.M.

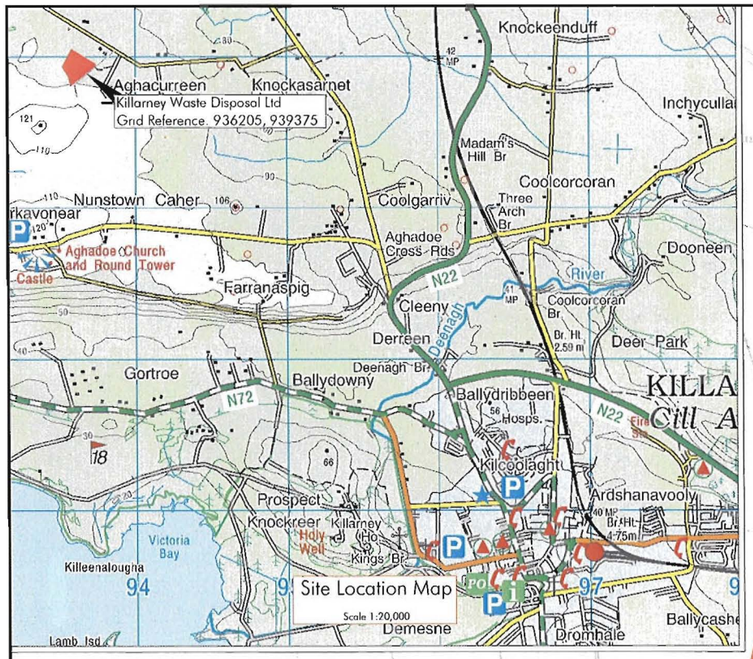
Killarney Waste Disposal LTD.

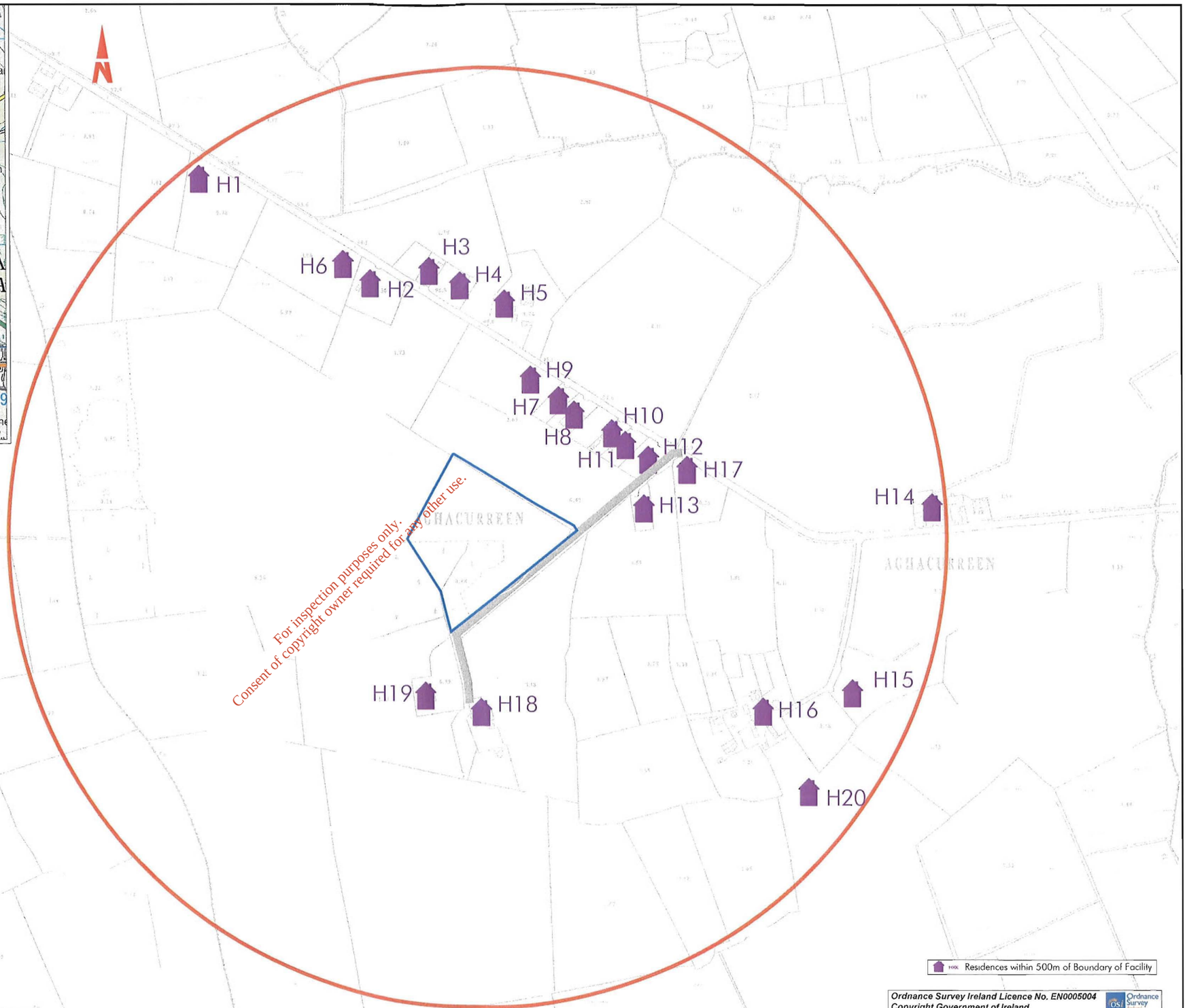
Waste Licence Application

Title:

Typical Layout for Proposed MRF Building

Drawn by:	C.N.	Job No:	MGE0031
Checked by:	S.A.	File No:	MGE0031DG0002
Approved by:	W.M.	Drg. No:	DG0002-01
Scale:	1:250 @ A3	Rev:	F01
Date:	Sept.'04		





Site Location Map
Scale 1:2500

H## Residences within 500m of Boundary of Facility

0.00km 0.1km 0.2km 0.3km 0.4km 0.5km
Scale Bar

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No.	Date	Drn./Chk.	Amendment / Issue	App.
F02	07/05/05	C.N / S.A	Final Issue	W.M.
F01	17/09/04	C.N / S.A	Final Issue	W.M.

Killarney Waste Disposal LTD.

Waste Licence Application

Title:
Proximity to Residences within 500m of Boundary of Facility

Drawn by	C.N	Job No	MGE0031
Checked by.	S.A	File No	MGE0031DG0001
Approved by.	W.M	Drg. No.	DG0001-02
Scale	1:2500 @ A1	Rev	F02
Date	Jun.'04		

Figure 2.3: Existing MRF