



Licensing Unit,  
Environmental Protection Agency,  
Headquarters,  
PO Box 3000,  
Johnstown Castle Estate,  
County Wexford.

7<sup>th</sup> July 2009

File Ref: MGE0109LT0036  
Our Ref: 311

**Re: Waste Licence Application W0250-01 - Article 14 Response**

Dear Sir/Madam,

The Agency issued an Article 14 Notice (in accordance with the Waste Management Licensing Regulations 2004) on the 6<sup>th</sup> May 2009 to RPS Consulting Engineers as agents to Kerry Central Recycling Facility Ltd. in relation to Waste Licence Application No. W0250-01 which was submitted to the Agency on the 11<sup>th</sup> November 2008. The licence application relates to a proposed Materials Recovery Facility and associated development works located in the townlands of Scart/Caherdean, Killarney, County Kerry.

For inspection purposes only.  
Consent of copyright owner required for any other use.

RPS submitted a letter to the Agency on the 9<sup>th</sup> June 2009, notifying the Agency of a revised submission date of the 8<sup>th</sup> July 2009 to respond to the Notice. A copy of this letter is attached.


It should also be noted that the Applicant also currently has a planning application lodged with Kerry County Council for the proposed facility (planning ref 2415/08). A Further Information Request (FIR) was issued by Kerry County Council on the 17<sup>th</sup> December 2009 in relation to the planning application and a Response to this FIR was submitted to the Council by RPS Consulting Engineers on behalf of the Applicant on the 25<sup>th</sup> June 2009. The issues raised in the FIR required some amendments to the original site layout (i.e new site access route). All amendments have been taken into full consideration in responding to this Notice. To this end, all drawings submitted as part of the Waste Licence Application have been revised and are included as part of this response.

We now enclose the following:

- i) 1 no. original, 1 no. copy and 16 no. electronic copies of our response to this Article 14 Notice consisting of the following:
- Revised Non-Technical Summary (Licence Application)
  - Response to the Article 14 Notice prepared under Article 12 Compliance (Items 1-16)
  - Response to the Article 14 Notice prepared under Article 13 Compliance (Items 1 and 2).
  - Odour Impact Assessment,
  - Drainage Calculation Report (June 2009),
  - Updated Chapter 5 – Surface Water (EIS),
  - Updated Landscape Layout Plan and Specification, and
  - Revised Drawings:
    - DG0016/01 F02 - Ownership Plan,
    - DG0017/01 F02 - Site Location Map,
    - DG0019/01 F02 - Site Plan,
    - DG0020/01 F02 - Services Plan,
    - DG0021/01 F02 - Proposed Internal Layout for MRF at Scart/Caherdean, Killarney (1),
    - DG0021/02 F02 - Proposed Internal Layout for MRF at Scart/Caherdean, Killarney (2),
    - DG0021/03 F02 - Proposed Internal Layout for MRF at Scart/Caherdean, Killarney (3),
    - DG0021/04 F02 - Proposed Internal Layout for MRF at Scart/Caherdean, Killarney (4), and
    - DG0022/01 F02 - Emissions & Monitoring Location Points.
- ii) 3 no. Electronic copies of the Response to the Further Information Request issued to Kerry County Council by RPS Consulting Engineers on behalf of the Applicant on the 25<sup>th</sup> June 2009.

We trust the above is satisfactory and we look forward to a positive response from the Agency on this waste licence application. In the meantime please do not hesitate to contact the undersigned at 091-400200 if you have any queries in relation to this response.

Yours sincerely,



**Willie Madden**  
**RPS Consulting Engineers**

mw/wm

Encl. 1 no. original, 1 no. copy and 16 no. electronic copies of Article 14 Notice  
3 No. electronic copies of Response to Further Information, June 2009.



RPS Consulting Engineers, Lyrn Building, IDA Business & Technology Park, Mervue, Galway, Ireland  
T +353 (0)91 534 100 F +353 (0)91 534 199 E ireland@rpsgroup.com W rpsgroup.com/ireland

Mr. John McEntagart,  
Inspector,  
Environmental Licensing Programme,  
EPA Regional Inspectorate Dublin,  
McCumiskey House,  
Richview,  
Clonskeagh Road,  
Dublin 14.

9th June 2009

Our Ref: MGE0109LT0033GAL  
File Ref: 310

**Re: Waste Licence Application W0250/01 - Kerry Central Recycling Facility Ltd.  
- Response to Article 14 Notice**

Dear John,

We refer to Waste Licence Application W0250/01 and to the associated Article 14 (2)(b)(ii) Notice issued by the Agency on the 6<sup>th</sup> May 2009.

Acting on behalf of the applicant, RPS is currently addressing the items set out in this notice for submission to the Agency.

It has been noted that the Agency has requested that the information should be submitted within six weeks of the date of the Notice (17<sup>th</sup> June 2009).

On behalf of the applicant, RPS wishes to notify the Agency that the response to this Notice will be delayed in its submission date and will require an additional three weeks in order to comprehensively respond to the issues raised. The delay relates to a response to one particular item which requires substantial additional input to design detail and specification requirements.

We therefore anticipate that a response to the Article 14 Notice will now be submitted to the Agency no later than Wednesday 8<sup>th</sup> July 2009.

We trust this submission date is agreeable with the Agency and if you have any further requests please do not hesitate to contact the undersigned.

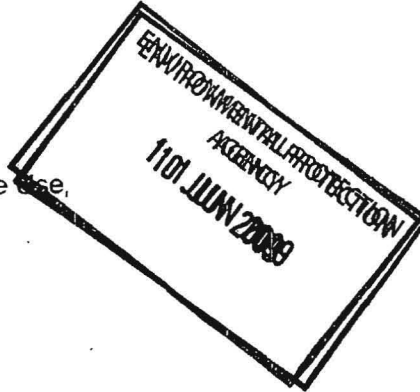
Yours sincerely,

**Maeve Walsh**  
**RPS Consulting Engineers Ltd.**  
mw/mw



RPS Consulting Engineers, Lyrr Building, IDA Business & Technology Park, Mervue, Galway, Ireland  
 T +353 (0)91 534 100 F +353 (0)91 534 199 E ireland@rpsgroup.com W rpsgroup.com/ireland

Administration,  
 Licensing Unit,  
 Office of Climate, Licensing & Resource Use,  
 EPA headquarters,  
 PO Box 3000,  
 Johnstown Castle Estate,  
 County Wexford.



9th June 2009

Our Ref: MGE0109LT0034GAL  
 File Ref: 310

**Re: Waste Licence Application W0250/01 - Kerry Central Recycling Facility Ltd.  
 - Response to Article 14 Notice**

To Whom it Concerns,

Please find attached correspondence with Inspector with regard to waste licence application W0250-01.

Yours sincerely,

**Maeve Walsh**  
**RPS Consulting Engineers Ltd.**  
 mw/mw

Encl. MGE0109LT00033

*For inspection purposes only.  
 Consent of copyright owner required for any other use.*

# Kerry Central Recycling Facility Ltd

## Waste Licence Application No. W0250-01 Article 14 Notice - Response

For inspection purposes only.  
Consent of copyright owner required for any other use.

**July 2009**

MGE0109CR0004







**Kerry Central Recycling Facility Ltd.**

**Waste Licence Application No.  
W0250-01**

**Article 14 Notice - Response**

**DOCUMENT CONTROL SHEET**

Client	Kerry Central Recycling Facility Ltd.					
Project Title	Waste Licence Application no W0250-01					
Document Title	Article 14 Notice - Response					
Document No.	MGE0109RP0016					
This Document Comprises	DCS	TOC	Text	List of Tables	List of Figures	No. of Appendices
	1	1	80	1	1	5

Rev.	Status	Author(s)	Reviewed By	Approved By	Office of Origin	Issue Date
F01	Final	M.W. <i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	Galway	7 <sup>th</sup> July 2009

## TABLE OF CONTENTS

ARTICLE 14 NOTICE .....	1
UPDATED NON-TECHNICAL SUMMARY .....	5
ARTICLE 12 COMPLIANCE.....	10
ITEM 1 - CLASSES OF ACTIVITY .....	11
ITEM 2 - INFRASTRUCUTRE.....	23
ITEM 3 - AIR.....	24
ITEM 4 - ODOUR (PART 1) .....	25
ITEM 5 - ODOUR (PART 2) .....	29
ITEM 6 - DUST .....	33
ITEM 7 - SURFACE WATER .....	35
ITEM 8 - STORM WATER SEWER DESIGN .....	41
ITEM 9 - PROCESS EFFLUENT .....	43
ITEM 10 - SANITARY EFFLUENT .....	46
ITEM 11 - NOISE.....	47
ITEM 12 - NOISE CONTROL.....	57
ITEM 13 - NUISANCE CONTROL.....	61
ITEM 14 - HABITATS.....	62
ITEM 15 - FIT AND PROPER PERSON .....	67
ITEM 16 - WASTE MANAGEMENT PLAN.....	68
ARTICLE 13 COMPLIANCE.....	76
ITEM 1 - ODOUR DISPERSION MODELLING .....	77
ITEM 2 - CASTLEMAINE HARBOUR SAC.....	78

## LIST OF FIGURES

Figure 6.1 2005 Wind Rose from nearest meteorological station (Valencia Observatory).....	34
---	----

## LIST OF TABLES

Table 1.1	Overview Of Waste Types, Quantities, Processes And Destination
Table B.7.1	Third And Fourth Schedules Of The Waste Management Acts 1996 To 2003
Table H.1(a)	Quantities of Waste in Relation to Each Class of Activity Applied for
Table 1.2	Summary of Incoming and Outgoing Material
Table 4.1	Design Parameters for the Odour Abatement System
Table E.1(ii)	MAIN Emissions to Atmosphere (1 Page for each emission point)
TABLE E.1(iii)	MAIN EMISSIONS TO ATMOSPHERE- Chemical characteristics of the emission

Table I.2(i)	SURFACE WATER QUALITY
Table 9.1	EPA Typical Wastewater Characteristics, Surface Water Standards and Typical Characteristics of Process Effluent
Table 9.2:	Population Equivalent
Table 11.1	Noise Monitoring Locations
Table 11.2	Summary of Baseline Noise Measurements
Table 11.3	Noise Sensitive Location
Table 11.4	Contribution of the proposed facility to noise levels not taking existing ambient noise levels & the acoustic properties of the MRF into account
Table 11.5	Combined existing ambient and predicted operational noise levels at the NSL's not taking acoustic properties of the MRF building into account (Worst Case Scenario)
Table 11.6	Significance scale for changes in noise levels (perceptible to human beings)
Table 11.7	Combined existing ambient and predicted operational noise levels at the NSL's taking acoustic properties of the MRF building into account
Table 11.8	Sound Power Data of Plant Equipment
Table I.6(i)	Ambient Noise Assessment
Table 12.1	Sound Reduction Index (R) Data for Kingspan Optimo Wall & Facade System
Table 12.1	Fixed and Mobile Sources of Machinery
Table 14.1	Woodland Mix Proposed
Table 16.1	Waste Infrastructure Timetable
Table 16.2	Implementation Timetable (Minimum Targets)

## APPENDICES

<b>APPENDIX 1</b>	<b>Odour Impact Assessment</b>
<b>APPENDIX 2</b>	<b>Drainage Calculation Report June 2009</b>
<b>APPENDIX 3</b>	<b>Updated Chapter 5 - Surface Water</b>
<b>APPENDIX 4</b>	<b>Updated Landscape Layout Plan and Specification</b>
<b>APPENDIX 5</b>	<b>Revised Drawings</b>

DG0016/01 F02 - Ownership Plan  
 DG0017/01 F02 - Site Location Map  
 DG0019/01 F02 - Site Plan  
 DG0020/01 F02 - Services Plan  
 DG0021/01 F02 - Proposed Internal Layout for MRF at Scart/Caherdean, Killarney (1)  
 DG0021/02 F02 - Proposed Internal Layout for MRF at Scart/Caherdean, Killarney (2)  
 DG0021/03 F02 - Proposed Internal Layout for MRF at Scart/Caherdean, Killarney (3)  
 DG0021/04 F02 - Proposed Internal Layout for MRF at Scart/Caherdean, Killarney (4)  
 DG0022/01 F02 - Emissions & Monitoring Location Points



**ARTICLE 14 NOTICE**

Ms Siobhan Glynn  
 RPS Consulting Engineers  
 Lyrr Building  
 IDA Business and Technology Park  
 Mervue  
 Galway

06/05/2009

W0250-01

<b>RPS</b>		Project No.	
Recipient	Wille Madden		
Register No.	12	File Ref	
Date Rec'd	07 MAY 2009		
PM			
Copied to	A	I	C
Scanned			
		Sign	Date

Environmental Protection Agency  
 An Ghníomhaireacht um Chaomhnú Comhshoil

Regional Inspectorate  
 McCumsiskey House, Richview,  
 Clonsilla Road, Dublin 14, Ireland

Cigireacht Réigiúnach, Teach Mhic Chumascaigh  
 Dea-Ratharc, Bóthar Cluain Sceach  
 Baile Atha Cliath 14, Éire

T: +353 1 268 0100  
 F: +353 1 268 0199  
 E: info@epa.ie  
 W: www.epa.ie  
 LoCall: 1890 33 55 99

re: Notice in accordance with Article 14(2)(b)(ii) of the Waste Management (Licensing) Regulations

Dear Ms Glynn,

I am to refer to the above referenced application for a waste licence relating to a facility Kerry Central Recycling Facility Limited, Scart/Caherdean, Killarney, Co. Kerry. Having examined the documentation submitted, I am to advise that the Agency is of the view that the documentation does not comply with Article 12 and Article 13 of the Waste Management (Licensing) Regulations.

You are therefore requested, in accordance with Article 14(2)(b)(ii) of the regulations, to take the steps and supply the information detailed below:

**ARTICLE 12 COMPLIANCE REQUIREMENTS**

1. Classes of activity: Review Sections B.7 and H.1 of the waste licence application form and submit revised versions (with a justification for the classes chosen) as necessary having consideration of the following. An MBT plant typically produces a stabilised biowaste that is disposed of in landfill – this is not a recovery activity and so it should be classified under Schedule 3 (class 6) not Schedule 4. The principal activity of the proposed site (MBT) is not solely a biological process and so might not be class 2 of the 4<sup>th</sup> Schedule. In addition, class 2 does not cover the transfer of source separated organic waste to a composting facility. If the waste that is mechanically treated goes to landfill, or other disposal outlet, then an appropriate disposal class will be required.
2. Infrastructure: Justify the reason for not proposing to install a wheelwash.
3. Air: Submit details on the proposed combined heat and power (CHP) plant, including details of its thermal capacity, the fuel it will use, its emissions (as per Section E.1 of the waste licence application), and the impact, as necessary, of the CHP emissions on air quality (as per Section I.1 of the licence application).



4. Odour: Submit details on the odour abatement systems (operation and control) and odour emissions in accordance with Section E.1 of the licence application form. Carry out an odour dispersion model to predict odour levels at the odour sensitive receptors and confirm whether or not the proposed facility is likely to cause odour nuisance. Reference should be made to Section I.1 of the licence application form and may also be made to the Agency's publication "Odour Impacts and Odour Emission Control Measures for Intensive Agriculture", R&D Report Series No. 14.
5. Odour control: State whether it is intended that the proposed drying system will ensure the organic fines are fully biodegraded and can meet the appropriate standards for stabilised biowaste, e.g respirometry standards as set out in the EPA technical guidance document *Municipal Solid Waste – Pre-treatment and Residuals Management*, Consultation Draft (or final document if published). Explain the principles of operation of the drying system and explain how the applicant will ensure the organic fines are fully biodegraded as necessary. Submit details of the biofilter and the biofilter stack. Clarify if the odour control measures for the facility will include maintaining the building under a negative pressure. Clarify what are the plans for the segregated organic waste and place these plans in the context of the plans for the management of organic fines. In regard to taking in segregated organic waste, explain how the applicant will ensure the turn-around time will be sufficient to prevent and control odours and explain how the proposal conforms to BAT.
6. Dust: Justify the assertion that "the frequency of meteorological conditions that lead to the suspension of dust particles is low" and submit the relevant meteorological data to support the assertion. Review the estimate of dust levels taking into account the proposed biomass CHP as well as the waste processing activities and the traffic.
7. Surface water: Confirm where the emission from SW1 enters the eastern tributary. Explain why there were Lamprey assessment locations (E-C and E-S) on the Eastern tributary but not the Western tributary of the Gweestin river. Explain the hydrological impacts on the Eastern and Western tributaries due to changes in the flow regimes of streams/drains draining the proposed development. In particular explain how site drainage will affect drainage/flooding issues in the area (including the Western and Eastern tributaries and the Gweestin river). Confirm and explain how the proposed development will conform to the requirements specified by the South Western Regional Fisheries Board in its letter dated 04/04/2008 (EIS Appendix A) regarding the protection of the Gweestin river and the Western and Eastern tributaries. Complete table I.2(i) of the licence application form.
8. Storm water sewer design: Justify the use of a 1 year return period in the storm sewer design. Submit the drawing of the attenuation pond (ref. DR0004/01). Clarify if a grit interceptor will be installed at the outfall of the storm water



discharge and submit details accordingly. If a grit interceptor (recommended in the EIS) is not to be used then justify how the proposed system that includes filter drains will ensure suspended solids will be adequately controlled.

9. **Process effluent:** Confirm the applicant has an agreement with the relevant sanitary undertaker to dispose of process effluent at the Tralee sewage treatment works. Reference should be made to Section I.3 of the licence application form regarding the information required. Clarify how the volume of process effluent expected to be generated was determined.
10. **Sanitary Effluent:** Clarify what is the depth of the polishing filter to be used in the sanitary effluent treatment system and justify that it is sufficient to prevent the contamination of groundwater.
11. **Noise:** Complete and submit Table E.5 (i) for each source of noise emissions. Provide a full copy of the report of the noise model and amend as necessary to include a map indicating predicted noise levels at the noise sensitive locations. Clarify the contribution of the facility to noise levels regardless of any changes in traffic. Clarify what was the nearest modelled location in table 10.12 of the EIS, "Predicted noise levels from internal sources at the nearest modelled location". Submit the modelled data for noise locations N1 and N3 along with N2 as per table 10.13 and include details of the L<sub>10</sub> and L<sub>90</sub> levels for these three locations. Complete table I.6(i) of the licence application form.
12. **Noise control:** Justify the assertion that the acoustic properties of the MRF building will give a sound reduction of 27 dB for the entire building fabric. Submit details of proposed mitigation measures if the noise model referred to above indicates noise levels above the identified noise limits in the EIS. Confirm what operations/activities at the facility will take place indoors and what will take place outdoors. Submit details of the acoustic enclosures/screens that will be installed around the plant or equipment or near noise sensitive locations.
13. **Nuisance control:** Justify the assertion that bird control measures are not necessary.
14. **Habitats:** Clarify the fate of the mature tree line under the operational phase of the facility and what measures the applicant will introduce to ensure its protection/preservation. Clarify what impact emissions from the facility are likely to have on the Castlemaine Harbour SAC. Clarify what is meant by *creative ecological design* with regard to mitigating the loss of wildlife cover and explain what measures the applicant will introduce in this regard.





15. **Fit and proper person:** Submit information to demonstrate that the applicant is likely to be in a position to meet any financial commitments or liabilities as per Section L.2 of the licence application form.
  
16. **Waste Management Plan:** Confirm what is the existing and desired capacity for materials recovery facilities in the Limerick, Clare and Kerry Region and confirm the need for this facility with reference to the Regional Waste Plan.

### ARTICLE 13 COMPLIANCE REQUIREMENTS

1. Carry out an odour dispersion model to predict odour levels at the odour sensitive receptors and confirm whether or not the proposed facility is likely to cause odour nuisance.
  
2. Clarify what impact emissions from the facility are likely to have on the Castlemaine Harbour SAC.

Your reply to this notice should include a revised non-technical summary (Application Form and EIS) which reflects the information you supply in compliance with the notice, insofar as that information impinges on the non-technical summary.

In the case where any drawings already submitted are subject to revision consequent on this request, a revised drawing should be prepared in each case. It is not sufficient to annotate the original drawing with a textual correction. Where such revised drawings are submitted, provide a list of drawing titles, drawing numbers and revision status, which correlates the revised drawings with the superseded versions.

**Please supply the information in the form of a one (1) original plus one (1) copy in hardcopy format within six weeks of the date of this notice. In addition submit sixteen (16) copies of the requested information to the Agency in electronic searchable PDF format on CD-ROM. Please note that all maps/drawings should not exceed A3 in size.**

Please note that the application's register number is **W0250-01**. Please direct all correspondence in relation to this matter to Administration, *Licensing Unit, Office of Climate, Licensing & Resource Use, Environmental Protection Agency, Headquarters, PO Box 3000, Johnstown Castle Estate, County Wexford* quoting the register number.

Yours sincerely,

**Mr John McEntagart**  
Inspector  
Office of Climate, Licensing & Resource Use

## REVISED NON-TECHNICAL SUMMARY

This Waste Licence Application relates to the proposed construction of a Material Recovery Facility (MRF), an office building, a public recycling centre, an internal access road, local road improvement works and associated works in the townlands of Scart/Caherdean near Farranfore in County Kerry. The development will be known as the Kerry Central Recycling Facility.

The site is located to the north of the L-3023 adjacent to the N22 National Primary Route between Killarney and Farranfore, 4km south of Farranfore and 9km north of Killarney. The site is situated within a rural context and landuse in the surrounding area is mainly agricultural. The nearest commercial activity to the site is Independent Irish Health Foods Ltd, who operate from their warehouse and offices to the north east of the site. There are 39 residential dwellings within a 1km radius of the site.

The proposed development site is drained by two tributaries of the Gweestin River. This river is designated under the Quality of Salmonid Waters Regulations 1998. The site is not located within any site designated for its conservation importance. The nearest designated site is the Castlemaine Harbour cSAC, which is situated approximately 300 m to the south of the site. The underlying aquifer is classified as being Locally Important and of High to Low vulnerability. The facility activity could pose a risk in terms of potential contamination (construction over watercourses and potential for accidental spills during both construction and operational phases). It is proposed to reduce these risks through the implementation of detailed mitigation measures to protect the surface water environment. These measures are further detailed in Chapter 5 of the EIS (June 2009) and in the Drainage Calculation Report (June 2009).

### Classes of Activities as specified in the Third and Fourth Schedules

The waste disposal activities as specified in the Third Schedule are Classes 6, 7, 11, 12 and 13. The waste recovery activities to be carried out as specified in the Fourth Schedule are Classes 2, 3, 4, 11, 12 and 13. The principal activity is Class 2 of the Fourth Schedule.

### Quantity and Nature of Waste to be Accepted at the Proposed Facility

It is proposed to accept 95,000 tonnes of waste per annum at the facility. A breakdown of this annual intake is shown below in **Table 1.1**.

**Table 1.1: Waste Types and Quantities Breakdown for Annual Intake**

Waste Type	Tonnes per Annum
Household	53,950
Commercial	29,050
Construction & Demolition Waste	12,000
<b>Total Annual Waste Intake</b>	<b>95,000</b>

## Description of the Proposed Development and Operations

The development involves the construction of a Materials Recovery Facility (MRF) building with a total ground floor area of approximately 12,098m<sup>2</sup> and a finished floor level of approximately 108.35mOD. It comprises 3 components as shown in Drawing **No. DG0019/01 (F02) (Appendix 5)** Site Plan which are described as follows:

- Building No. 1: 158.4m long, 40m wide and 11.7m high,
- Building No. 2: 95m long, 40m wide and 11.7m high, and
- Building No. 3: 54.5m long, 36m wide and 11.7m high.

The external cladding of the MRF building comprises a base of 2.6m high fair-faced block work wall and architectural cladding in Olive Green (BS12B27) above this wall. The roofs are proposed to be a butterfly construction in Merlin Grey (BS 18B25).

The MRF building has been designed with a maximum number of access points to facilitate delivery and loading of waste to and from the building. A waste quarantine area and waste inspection areas will be provided in the MRF building.

A public recycling centre will also be constructed for the deposition of recyclables materials including construction and demolition waste, timber, metals, cardboard, paper, glass, plastic bottles/film, green waste, WEEE, fluorescent tubes, batteries, bulky waste, waste oils, textiles and household hazardous waste. The public recycling centre incorporates a high level public drop off area with a hazardous waste compound in the centre and a lower level skip drop off and collection area.



The office building located to the northeast corner of the site will be 12m long, 7m wide and 3.5m high, with finished floor level of approximately 110.05m OD. This office building will provide a reception area, office areas, a canteen and toilet facilities. Drawing **No. DG0019/01 (F02) (Appendix 5)** Site Plan provides details.

The proposed development will include for the construction of a new access road, an internal road system and road improvement works on the L-3023. The access road will link the site to the local road L-3023. Trucks and cars will enter and exit the site using this access road. It is proposed that the general public will have access to the public recycling centre but access to the remaining areas of the facility will be restricted. Trucks will be allowed travel around the facility internally in an anti-clockwise direction. A two metre wide footpath will be provided around the facility which will enable staff to safely access areas around the proposed facility. Two weighbridges will be located at the facility for incoming and outgoing traffic.

The operational hours for the proposed facility are outlined as follows:

- (a) 24 hours Monday – Saturday.
- (b) 07:00 – 20:00 Monday – Friday; 08:00 – 18:00 Saturday.
- (c) 08:00 – 20:00 Monday – Friday; 08:00 – 18:00 Saturday.
- (d) Public Recycling Centre Opening Hours: 08:00 – 20:00 Monday – Sunday.

## Emissions and Treatment

Foul water from the office building and toilets will be discharged via a wastewater treatment plant to a soil polishing filter. Stormwater run-off from the facility will be treated using a combination of systems which will include filter drains, surface water sewers, an attenuation pond and hydrocarbon interceptors. Some roof water run-off will be collected in a tank and reused on site for dust mitigation during the summer months.

Internal drainage inside the MRF building will drain to an underground tank which will be bunded with leakage detection. The effluent generated from processing will be transferred to Tralee WWTP for treatment. The tank will be double skinned with a 17,000 litre capacity and dimensions 3m high x 3m wide x 5m long. It will be manufactured in general purpose resin and reinforced with 80 x 80 x 5mm steel box section.

A bunded fuel storage area with leakage detection will be provided which will consist of four tanks each of 5,000 litres capacity.

Odour abatement equipment will be used in the form of an internal biofilter which will be part of the bio-drying system for the organic fines processed out from the mixed municipal waste stream.

## Environmental Assessment

An Environmental Impact Statement (EIS) has been prepared to identify the potential environmental effects of the proposed development and to assess how these impacts can be avoided or reduced. Chapter 5 of the EIS - Surface Water - has been updated. The revision was made based on site layout alterations (including relocation of the proposed access road into the facility) which were required to respond to a Further Information Request issued by Kerry County Council with regard to the planning application for the proposed facility. If the mitigation measures outlined in the EIS are fully implemented the development will not have a negative impact on the receiving environment.

## The Need for the Development

The need to increase recycling rates to 45%, in line with EU targets, has been set out in the Waste Management Plan for the Limerick/Clare/Kerry Region 2006-2011. The development of an additional recycling facility will contribute significantly to successfully meeting this target. The proposed development will play an important role in filling a gap in the C&D waste recycling market. It will also contribute to reducing the amount of residual waste that needs to be disposed of to landfill and will allow for residual waste to be pre-treated prior to landfilling which is the principle obligation of the EU Landfill Directive (1999/31/EC).

The WMP's policy on Material Recovery Facilities and Waste Transfer Stations requires local authorities to support the development of such facilities where these are consistent with overall objectives of the WMP and that additional facilities are to be provided where demand arises. This initiative by Kerry Central Recycling Facility Ltd. is based on the existence of such a demand. The site would be centrally located in the proposed catchment area and as such would be in line with the proximity principle endorsed by the WMP. The 2006-2007 Annual Report on the WMP recognises the issues associated with sourcing suitable sites for recycling facilities and this proposed development therefore provides a solution to setbacks identified in the implementation of the WMP.

The proposed development supports national and EU policies for the treatment of waste. On a local and regional level the proposed development meets the objectives of the Kerry

County Development Plan 2009-2015 and the Waste Management Plan for the Limerick/Clare/Kerry Region 2006-2011. It will also create a significant employment opportunity in the area.

*For inspection purposes only.  
Consent of copyright owner required for any other use.*

## ARTICLE 12 COMPLIANCE

*For inspection purposes only.  
Consent of copyright owner required for any other use.*

## ITEM 1 - CLASSES OF ACTIVITY

***Classes of Activity: Review Sections B.7 and H.1 of the waste licence application form and submit revised versions (with a justification for the classes chosen) as necessary having consideration of the following. An MBT plant typically produces a stabilised biowaste that is disposed of in landfill – this is not a recovery activity and so it should be classified under Schedule 3 (class 6) not Schedule 4. The principal activity of the proposed site (MBT) is not solely a biological process and so might not be class 2 of the 4<sup>th</sup> Schedule. In addition, Class 2 does not cover the transfer of source separated organic waste to a composting facility. If the waste that is mechanically treated goes to landfill, or other disposal outlet, then an appropriate disposal class will be required.***

### RESPONSE

A review of Sections B.7 and H.1 of the waste licence application form has been made and a revised version of these sections is now provided with a justification for the classes chosen. This revision has taken into account the Agency's comments made in Item 1 of the Article 14 notice.

The following revisions have been made:

- The facility will produce up to 35,000 tonnes per annum (tpa) of stabilised biowaste. 30,000 tonnes per annum will be sent off site to landfill. This has been classified under the Third Schedule, Class 6. The remaining 5,000 tonnes per annum of stabilised biowaste will be used to produce a Refuse Derived Fuel (RDF) off site. This volume of waste contributes to the overall 10,000 tonnes per annum of organic waste which will be reused as RDF as set out in the section below. This has been classified under the Fourth Schedule, Class 2.
- 30,250 tonnes per annum of organic material will be recycled<sup>1</sup> and reclaimed at the facility and has been classified under the Fourth Schedule 4, Class 2. This includes, but is not limited to, biological treatment<sup>2</sup> of 10,000 tonnes of organic material for RDF. The remaining

<sup>1</sup> S5 of Waste Management Act 1996 "recycling" means, in relation to waste, the subjection of waste to any process or treatment to make it re-usable in whole or in part;

<sup>2</sup> Biological Treatment - means composting, anaerobic digestion, mechanical-biological treatment or any other biological treatment process for stabilising and sanitising biodegradable waste, including pre-treatment processes ("Municipal Solid Waste- Pre-treatment & Residual Management", EPA 2008.)

20,250 tonnes of paper and cardboard will also be recycled and reclaimed. These materials will not be used as solvents.

- The quantities of waste classified under the Fourth Schedule, Class 2 does not include for the 3,000 tonnes of source segregated organic waste for transfer to composting facilities. This figure is included in Fourth Schedule, Classes 11, 12 and 13 (see justification in revised Section B.1 below).
- Table B.7.1 has been amended in order to clarify in full the classes of activities proposed for the facility and the principal activity is denoted using a '**P**' under the **Fourth Schedule, Class 2 - "Recycling or reclamation of organic substances which are not used as solvents"**.

The following should be noted in relation to the proposed facility:

- The application for a waste licence for the proposed facility does not extend to activities that take place off site. The waste licence application relates solely to activities that will be carried out at the facility. As no disposal activities will occur on site or as part of the processes at the facility, the main activities fall under the Fourth Schedule – Recovery<sup>3</sup>.
- Having revised the figures for each activity, it should be noted that of the 95,000 tonnes per annum of material to be accepted at the facility, **60,000 tonnes per annum** of this material will be processed/stored on site for further recovery off site and **35,000 tonnes per annum** of material will be processed on site and disposed of off site at a different waste facility, under the conditions of a separate waste licence.
- The facility will produce 35,000 tonnes per annum of stabilised biowaste, most of which will be disposed of to landfill (30,000 tonnes per annum) which has been classified under the Third Schedule, Class 6. However the MBT process encompasses other elements as well as the production of a stabilised biowaste. MBT is defined in The EPA Technical Guidance Document "*Municipal Solid Waste- Pre-treatment & Residual Management*", 2009 by making

---

<sup>3</sup> S4 of Waste Management Act 1996(4) - In this Act, "recovery", in relation to waste, means any activity carried on for the purposes of reclaiming, recycling or re-using, in whole or in part, the waste and any activities related to such reclamation, recycling or re-use, including any of the activities specified in the *Fourth Schedule*, and "waste recovery activity" shall be construed accordingly.



reference to Article 5 (2) of the Waste Management (Facility Permit & Registration) Regulations, 2008 (SI No 821):

*“ the treatment of residual municipal waste through a combination of mechanical processing and biological stabilisation, in order to stabilise and reduce the volume of waste which requires disposal.”*

- In line with these definitions, the proposed facility will take in household and commercial waste (up to **95,000 tonnes per annum**), will mechanically remove some parts of the waste which will be sent for recycling and reclamation (**52,000 tonnes per annum**) and will biologically treat the organic residues and fines (drying tunnels) (**35,000 tonnes per annum**). These residues will be sent off site for further recovery through Refuse Derived Fuels (RDF) and for disposal through landfilling. The remaining quantity of waste at the facility will include **5,000 tonnes per annum** of residual waste resulting from mechanical sorting of C&D waste and dry recyclables which will be sent off site for disposal. **3,000 tonnes per annum** of segregated organic (brown bin waste) will be stored on site and sent to a composting facility off site.

An overview of waste types, quantities and processes is shown in **Table 1.1**.

For inspection purposes only.  
Consent of copyright owner required for any other use.

**Table 1.1 Overview of Waste Types, Quantities, Processes and Destination**

Waste Material Type	Amount Accepted tonnes per annum(tpa)	Processing Step 1	Processing Step 2	Final Destination
Municipal Solid Waste	50,000	Manually & Mechanically	35,000 tpa organic fines dried in drying tunnels	30,000 tpa sent to landfill
				5,000 tpa recovered as Refuse Derived Fuels
				15,000 tpa of dry recyclables sent off site for recovery (including 5,000 tpa to RDF)
Source Segregated Recyclables	30,000	Manually & Mechanically	n/a	27,000 tpa sent for recovery
				3,000 tpa sent for disposal
Construction and Demolition Waste	12,000	Manually & Mechanically	n/a	10,000 tpa sent for recovery
				2,000 tpa sent for disposal
Source Segregated Organic Material (Brown Bin)	3,000	Stored on site	n/a	3,000 tpa composting facility off-site
<b>Total</b>	<b>95,000</b>			<b>95,000 tpa</b>

## Revised Section B.7

### B.7 Type of Waste Activity, Tonnages & Fees

B.7.1 Specify the class or classes of activity in Table B.7.1, in accordance with the Third Schedule or Fourth Schedule to the Waste Management Acts 1996 to 2003, to which the application relates (check the relevant box(es) and mark the principal activity with a 'P').

**Attachment B.7** should identify the principle activity and include a brief technical description of each of the other activities specified. **There can only be one principal activity.**

**Table B.7.1 Third and Fourth Schedules of the Waste Management Acts 1996 to 2003**

Waste Management Acts 1996 to 2003			
THIRD SCHEDULE Waste Disposal Activities	Y/N	FOURTH SCHEDULE Waste Recovery Activities	Y/N
1. Deposit on, in or under land (including landfill).		1. Solvent reclamation or regeneration.	
2. Land treatment, including biodegradation of liquid or sludge discards in soils.		2. Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological processes).	<b>P</b>
3. Deep injection of the soil, including injection of pumpable discards into wells, salt domes or naturally occurring repositories.		3. Recycling or reclamation of metals and metal compounds.	<b>Y</b>
4. Surface impoundment, including placement of liquid or sludge discards into pits, ponds or lagoons.		4. Recycling or reclamation of other inorganic materials.	<b>Y</b>
5. Specially engineered landfill, including placement into lined discrete cells which are capped and isolated from one another and the environment.		5. Regeneration of acids or bases.	
6. Biological treatment not referred to elsewhere in this Schedule which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1 to 5 or paragraphs 7 to 10 of this Schedule.	<b>Y</b>	6. Recovery of components used for pollution abatement.	
7. Physico-chemical treatment not referred to elsewhere in this Schedule which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1 to 5 or paragraphs 8 to 10 of this Schedule (including evaporation, drying and calcination).	<b>Y</b>	7. Recovery of components from catalysts.	
8. Incineration on land or at sea.		8. Oil re-refining or other re-uses of oil.	
9. Permanent storage, including emplacement of containers in a mine.		9. Use of any waste principally as a fuel or other means to generate energy.	
10. Release of waste into a water body (including a seabed insertion).		10. The treatment of any waste on land with a consequential benefit for an agricultural activity or ecological system.	
11. Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule.	<b>Y</b>	11. Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule.	<b>Y</b>
12. Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule.	<b>Y</b>	12. Exchange of waste for submission to any activity referred to in a preceding paragraph of this Schedule.	<b>Y</b>
13. Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.	<b>Y</b>	13. Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced.	<b>Y</b>

## Attachment B7

### Third Schedule

**Class 6:** This activity provides for the biological treatment (drying) of waste which results in final mixtures that will be sent to landfill for disposal. This includes the following:

- (a) Residual and organic fines resulting from the drying of mechanically sorted mixed municipal waste (30,000 tonnes per annum).

Total amount of waste accepted, biologically treated and sent for disposal from the facility per year under the Third Schedule, Class 6: **30,000 tonnes per annum.**

**Class 7:** This activity provides for the physico-chemical treatment of dry recyclables and C&D residual waste and fines that will be sent to landfill for disposal. This includes the following:

- (a) Residual waste resulting from the mechanical sorting of dry recyclables (3,000 tonnes per annum).
- (b) Fines resulting from the mechanical sorting of C&D waste (2,000 tonnes per annum).

Total amount of waste accepted, mechanically sorted and sent for disposal from the facility per year under the Third Schedule, Class 7: **5,000 tonnes per annum.**

**Class 11:** This activity provides for the processing and mixing of wastes prior to transfer to another facility for disposal and includes for the following:

- (a) Residual and organic fines from segregated mixed municipal waste (30,000 tonnes per annum).
- (b) Residual waste from segregated dry recyclables (3,000 tonnes per annum).
- (c) Fines from C&D waste (2,000 tonnes per annum).

Total amount of waste accepted and sent for disposal from the facility per year under the Third Schedule, Class 11: **35,000 tonnes per annum.**

**Class 12:** This activity is required for the processing and baling of waste on-site prior to disposal and includes for the following:

- (a) Residual and organic fines from segregated mixed municipal waste (30,000 tonnes per annum).
- (b) Residual waste from segregated mixed municipal waste (3,000 tonnes per annum).
- (c) Fines from C&D waste (2,000 tonnes per annum).

Total amount of waste accepted and sent for disposal from the facility per year under the Third Schedule, Class 12: **35,000 tonnes per annum.**

**Class 13:** This activity is required for the storage of waste arising at the facility prior to disposal and includes for the following:

- (a) Residual and organic fines from segregated mixed municipal waste (30,000 tonnes per annum).
- (b) Residual waste from segregated mixed municipal waste (3,000 tonnes per annum).
- (c) Fines from C&D waste (2,000 tonnes per annum).

Total amount of waste accepted and sent for disposal from the facility per year under the Third Schedule, Class 13: **35,000 tonnes per annum.**

#### Fourth Schedule

**Class 2:** This activity refers to the sorting and processing of mixed municipal waste. This material will undergo Mechanical Biological Treatment (MBT).

- (a) Paper and cardboard, which are organic fractions of the dry recyclables, will be accepted and sorted and sent to a recovery facility – (approximately 20,250 tonnes per annum).
- (b) Refuse Derived Fuel (RDF) which is organic in nature will be sorted from the mixed municipal waste fraction and from the drying of organic fines. It will be sent for recovery (approximately 10,000 tonnes per annum).

Total amount of waste accepted and recovered per year under the Fourth Schedule, Class 2: **30, 250 tonnes per annum.**

**Class 3:** This activity is required for the sorting of metals which will be stored at the facility and then transferred to a metal recycling facility for recovery.

Approximately 3,000 tonnes of metals will be separated from the C & D waste accepted at the facility.

Total amount of waste accepted and recovered per year under the Fourth Schedule, Class 3: **3,000 tonnes per annum.**

**Class 4:** This activity is required for the sorting, separation and processing of the inorganic fraction of mixed municipal waste and separately collected dry recyclables and C&D waste.

- (a) Inorganic dry recyclables sorted from mixed municipal waste and sent for recovery (10,000 tonnes per annum).
- (b) Inorganic C& D waste sorted and sent for recovery (7,000 tonnes per annum).
- (c) Inorganic dry recyclables sorted from overall dry recyclables and sent for recovery (6,750 tonnes per annum).

Total amount of waste accepted and recovered per year under the Fourth Schedule, Class 4: **23,750 tonnes per annum.**

**Class 11:** This activity is limited to the packaging of waste by baling, wrapping, placing in containers or trailers prior to submission to a recycling facility. This includes the following:

- (a) Paper and cardboard sorted from the dry recyclables (approximately 20,250 tonnes per annum).
- (b) Segregated organic waste which will be stored at the facility and sent onto a composting facility (3,000 tonnes per annum).
- (c) Refuse Derived Fuel (RDF) sorted from the mixed municipal waste fraction (approximately 10,000 tonnes per annum).
- (d) Metals sorted from the C & D waste (3,000 tonnes per annum).
- (e) Inorganic dry recyclables sorted from mixed municipal waste (10,000 tonnes per annum).
- (f) Inorganic C& D waste sorted and sent for recovery (7,000 tonnes per annum).  
Inorganic dry recyclables sorted from overall dry recyclables (6,750 tonnes per annum).

Total amount of waste accepted and recovered per year under the Fourth Schedule, Class 11: **60,000 tonnes per annum.**

**Class 12:** This activity is limited to the exchange of recycling at the facility. This includes the following:

- (a) Paper and cardboard sorted from the dry recyclables (approximately 20,250 tonnes per annum).
- (b) Segregated organic waste which will be stored at the facility and sent onto a composting facility (3,000 tonnes per annum).
- (c) Refuse Derived Fuel (RDF) sorted from the mixed municipal waste fraction (approximately 10,000 tonnes per annum).
- (d) Metals sorted from the C & D waste (3,000 tonnes per annum).
- (e) Inorganic dry recyclables sorted from mixed municipal waste (10,000 tonnes per annum).
- (f) Inorganic C& D waste sorted and sent for recovery (7,000 tonnes per annum).
- (g) Inorganic dry recyclables sorted from overall dry recyclables (6,750 tonnes per annum).

Total amount of waste accepted and recovered per year under the Fourth Schedule, Class 12: **60,000 tonnes per annum.**

**Class 13:** This activity is required for the short term storage of waste at the facility before it is sent for recovery. This includes the following:

- (a) Paper and cardboard sorted from the dry recyclables (approximately 20,250 tonnes per annum).
- (b) Segregated organic waste which will be stored at the facility and sent onto a composting facility (3,000 tonnes per annum).



- (c) Refuse Derived Fuel (RDF) sorted from the mixed municipal waste fraction (approximately 10,000 tonnes per annum).
- (d) Metals sorted from the C & D waste (3,000 tonnes per annum).
- (e) Inorganic dry recyclables sorted from mixed municipal waste (10,000 tonnes per annum).
- (f) Inorganic C& D waste sorted and sent for recovery (7,000 tonnes per annum).
- (g) Inorganic dry recyclables sorted from overall dry recyclables (6,750 tonnes per annum).

Total amount of waste accepted and stored at the facility per year under the Fourth Schedule, Class 13: **60,000 tonnes per annum.**

### **Principal Activity**

The Principal Activity carried out at the site in accordance with the Fourth Schedule of the Waste Management Acts 1996 to 2003 is as follows:

**Fourth Schedule, Class 2:** This activity provides for the recycling or reclamation of organic substances which are not used as solvents (including composting and other biological processes).

*For inspection purposes only.  
Consent of copyright owner required for any other use.*

**REVISED SECTION H.1****SECTION H MATERIALS HANDLING****H.1 Waste Types and Quantities – Existing & Proposed**

Provide an estimation of the quantity of waste likely to be handled in relation to each class of activity applied for. This information should be included in Table H.1 (a).

**Table H.1(a) Quantities of Waste in Relation to Each Class of Activity Applied for**

Waste Management Act 3rd Schedule (Disposal) Activities			Waste Management Act 4th Schedule (Recovery) Activities		
Class of Activity Applied For		Quantity (tpa)	Class of Activity Applied For		Quantity (tpa)
Class 1			Class 1		
Class 2			Class 2		30,250
Class 3			Class 3		3,000
Class 4			Class 4		23,750
Class 5			Class 5		
Class 6		30,000	Class 6		
Class 7		5,000	Class 7		
Class 8			Class 8		
Class 9			Class 9		
Class 10			Class 10		
Class 11		35,000	Class 11		60,000
Class 12		35,000	Class 12		60,000
Class 13		35,000	Class 13		60,000

**Waste accepted at the facility per annum will be sourced from the following:**

- 50,000 tonnes of mixed municipal waste
- 30,000 tonnes segregated dry recyclables
- 12,000 tonnes C&D waste
- 3,000 tonnes segregated organic waste (brown bin)

### Third Schedule

**Class 6: 30,000 tonnes** = 30,000 tonnes of residual and organic fines resulting from the drying of mechanically sorted mixed municipal waste.

**Class 7: 5,000 tonnes** = 3,000 tonnes of residual waste resulting from the mechanical sorting of dry recyclables and 2,000 tonnes of fines resulting from the mechanical sorting of C&D waste.

**Class 11: 35,000 tonnes** = 30,000 tonnes of residual and organic fines from segregated mixed municipal waste, 3,000 tonnes of residual waste from segregated dry recyclables and 2,000 tonnes of fines from C&D waste.

**Class 12: 35,000 tonnes** = 30,000 tonnes of residual and organic fines from segregated mixed municipal waste, 3,000 tonnes of residual waste from segregated dry recyclables and 2,000 tonnes of fines from C&D waste.

**Class 13: 35,000 tonnes** = 30,000 tonnes of residual and organic fines from segregated mixed municipal waste, 3,000 tonnes of residual waste from segregated dry recyclables and 2,000 tonnes of fines from C&D waste.

### Fourth Schedule

**Class 2: 30,250 tonnes of organic waste** = 20,250 tonnes of paper and cardboard, and 10,000 tonnes of RDF sent for recovery.

**Class 3: 3,000 tonnes of metal waste** = 3,000 tonnes of metals sent for recovery.

**Class 4: 23,750 tonnes of inorganic waste** = 10,000 tonnes of dry recyclables from mixed municipal process, 7,000 tonnes of C&D waste (10,000 tonnes total – 3,000 tonnes metals) and 6,750 tonnes segregated dry recyclables (27,000 tonnes total – 20,250 tonnes paper and cardboard) sent for recovery.

**Class 11: 60,000 tonnes** = 20,250 tonnes of paper and cardboard, 10,000 tonnes of RDF sent for recovery, 3,000 tonnes of segregated organic waste (brown bin), 3,000 tonnes of metals sent for recovery, 10,000 tonnes of dry recyclables from mixed municipal process, 7,000 tonnes of C&D waste and 6,750 tonnes segregated dry recyclables sent for recovery.

**Class 12: 60,000 tonnes** = 20,250 tonnes of paper and cardboard, 10,000 tonnes of RDF sent for recovery, 3,000 tonnes of segregated organic waste (brown bin), 3,000 tonnes of metals sent for recovery, 10,000 tonnes of dry recyclables from mixed municipal process, 7,000 tonnes of C&D waste and 6,750 tonnes segregated dry recyclables sent for recovery.

**Class 13: 60,000 tonnes** = 20,250 tonnes of paper and cardboard, 10,000 tonnes of RDF sent for recovery, 3,000 tonnes of segregated organic waste (brown bin), 3,000 tonnes of metals sent for recovery, 10,000 tonnes of dry recyclables from mixed municipal process, 7,000 tonnes of C&D waste and 6,750 tonnes segregated dry recyclables sent for recovery.

A summary of incoming and outgoing material is set out in **Table 1.2**.

**Table 1.2 Summary of Incoming and Outgoing Material**

Incoming per Annum	Outgoing per Annum
50,000 tonnes mixed municipal waste	<ul style="list-style-type: none"> <li>10,000 tonnes RDF sent for energy recovery.</li> <li>10,000 dry recyclables sent for recovery.</li> <li>30,000 tonnes (residual and organic fines (dried)) sent for disposal.</li> </ul>
30,000 tonnes segregated dry recyclables	<ul style="list-style-type: none"> <li>27,000 tonnes sent for recovery (20,250 of this is paper and cardboard).</li> <li>3,000 tonnes sent for disposal.</li> </ul>
12,000 tonnes C&D waste	<ul style="list-style-type: none"> <li>10,000 tonnes sent for recovery (3,000 tonnes of this is metals)</li> <li>2,000 tonnes sent for disposal.</li> </ul>
3,000 tonnes segregated organic waste (brown bin)	<ul style="list-style-type: none"> <li>3,000 tonnes sent for recovery.</li> </ul>

## ITEM 2 - INFRASTRUCUTRE

**Infrastructure: Justify the reason for not proposing to install a wheelwash.**

### RESPONSE

It is not anticipated that trucks entering and exiting the proposed facility will require a wheelwash facility as the proposed processing of materials will take place indoors in the MRF building. The internal drainage system is designed to ensure that all run-off resulting from the sorting and treatment of waste is collected internally and stored in a collection tank. Trucks will enter and exit the site via a paved internal road system which will not be in contact with the internal waste sorting and processing stages.

Control measures and good housekeeping will be implemented to ensure that these access routes are maintained. A sweeper will be used on site as an alternative method to wheel cleaning. Regular sweeping of the facility with a sweeper will control the amount of dust generated. In addition, roof water run-off will be collected and used in a mobile water sprayer which will be deployed during extended dry weather conditions to control dust emissions.

For inspection purposes only.  
Consent of copyright owner required for any other use.

### ITEM 3 - AIR

***Air: Submit details on the proposed combined heat and power (CHP) plant, including details of its thermal capacity, the fuel it will use, its emissions (as per Section E.1 of the waste licence application), and the impact, as necessary, of the CHP emissions on air quality (as per Section I.1 of the licence application).***

### RESPONSE

It is no longer proposed to use a combined heat and power (CHP) wood chip burner at the facility.

*For inspection purposes only.  
Consent of copyright owner required for any other use.*



## ITEM 4 - ODOUR (PART 1)

***Odour: Submit details on the odour abatement systems (operation and control) and odour emissions in accordance with Section E.1 of the licence application form. Carry out an odour dispersion model to predict odour levels at the odour sensitive receptors and confirm whether or not the proposed facility is likely to cause odour nuisance. Reference should be made to Section I.1 of the licence application form and may also be made to the Agency's publication "Odour Impacts and Odour Emission Control Measures for Intensive Agriculture", R&D Report Series No.14.***

### RESPONSE

- (i) ***Submit details on the odour abatement systems (operation and control) and odour emissions in accordance with Section E.1 of the licence application form.***

#### E.1 Emissions to Atmosphere

Details of all point emissions to atmosphere should be supplied. Table E.1.(i) (for Landfill Gas Flare emissions) must be completed for all landfills with a flare. Complete Table E.1(ii) and E.1(iii) for all other main emission points, including stack sources (incinerator stacks, landfill gas utilisation plants, air handling unit emissions etc.). Complete Table E.1(iv) for minor/fugitive/ground emission points.

There will be one point emission source to the atmosphere via the biofilter system. This will discharge to atmosphere via a 12 m high stack in Building No 1. This system will have a maximum flow of c. 35,000 m<sup>3</sup>/hr based on 3 – 4 air changes per hour. This emission point location is identified as E1 on Drawing No. **DG00019-01 F02**.

Design parameters for the odour abatement system are set out in **Table 4.1**.

**Table 4.1 Design Parameters for the Odour Abatement System**

Parameter	Design Requirement
Biofilter total area	300 m <sup>2</sup>
Odour Concentration at Stack emission point	2000 ou/m <sup>3</sup>
Volume flow	9 m <sup>3</sup> /s
Stack Diameter	1.2 m
Building height	11.7 m
Stack Height	12 m

**Table E.1(ii) Main Emissions to Atmosphere (1 Page for each emission point)**

Emission Point Ref. N <sup>o</sup> :	E1
Source of Emission:	Internal biofilter for drying tunnels
Location :	Roof of Building No. 1 (refer to Drawing No. DG00019-01 F02)
Grid Ref. (12 digit, 6E,6N):	93500.58, 99641.75
Vent Details	
Diameter:	1.2 metres
Height above Ground(m):	12 metres
Date of commencement:	First day of operations at the facility- 2010/2011

(i) Volume to be emitted:			
Average/day	420,000m <sup>3</sup> /d*	Maximum/day	630,000m <sup>3</sup> /d**
Maximum rate/hour	35,000m <sup>3</sup> /h	Min efflux velocity	9m.sec <sup>-1</sup> ***
(ii) Other factors			
Temperature	30°C(max)	18°C(min)	25°C(avg)
For Combustion Sources:			
Volume terms expressed as : <input type="checkbox"/> wet. <input type="checkbox"/> dry.        _____%O <sub>2</sub>			

\*Assume average of 12 hours/day

\*\*Assume Maximum of 18hours/day

\*\*\* During Operational hours only

Note: Assume 3 to 4 air changes per hour in accordance with BAT guidance

(iii) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (*start-up /shutdown to be included*):

Periods of Emission (avg)	<u>  60  </u> min/hr <u>  18  </u> hr/day <u>  317  </u> day/yr
---------------------------	---

**TABLE E.1(iii): MAIN EMISSIONS TO ATMOSPHERE - Chemical characteristics of the emission (1 table per emission point)**  
**Emission Point Reference Number: E1**

Parameter	Prior to treatment <sup>(1)</sup>			Brief description of treatment	As discharged <sup>(1)</sup>					
	mg/Nm <sup>3</sup>		kg/h		mg/Nm <sup>3</sup>		kg/h.		kg/year**	
	Avg	Max			Avg	Max	Avg	Max	Avg	Max
Ammonia				Biofilter	40	50	1.4	1.75	7988.4	9985.5
Hydrogen sulphide					7	9	0.245	0.315	1398	1797.4
Mercaptans (as S)					7	9	0.245	0.315	1398	1797.4

Consent of copyright owner required for any other use.  
 For inspection purposes only.

\*At stack emission point

\*\*Assume maximum 18 hours operating /day for 317 days a year

1. Concentrations should be based on Normal conditions of temperature and pressure, (i.e. 0°C,101.3kPa). Wet/dry should be the same as given in Table E.1(ii) unless clearly stated otherwise.

\*\*Assume maximum 18 hours operating /day for 317 days a year

Concentrations should be based on Normal conditions of temperature and pressure, (i.e. 0°C,101.3kPa). Wet/dry should be the same as given in Table E.1(ii) unless clearly stated otherwise.

***Carry out an odour dispersion model to predict odour levels at the odour sensitive receptors and confirm whether or not the proposed facility is likely to cause odour nuisance.***

An Odour Impact Assessment which includes an odour dispersion model has been completed for the facility and is attached in **Appendix 1**. The model predicts that the end-pipe emissions from the proposed biofilter stack will not give rise to reasonable cause for odour annoyance at the nearest sensitive receptors.

*For inspection purposes only.  
Consent of copyright owner required for any other use.*

## ITEM 5 - ODOUR (PART 2)

***Odour Control:*** State whether it is intended that the proposed drying system will ensure the organic fines are fully biodegraded and can meet the appropriate standards for stabilised biowaste, e.g. respirometry standards as set out in the EPA technical guidance document *Municipal Solid Waste – Pre-treatment and Residuals Management, Consultation Draft* (or final document if published). Explain the principles of operation of the drying system and explain how the applicant will ensure the organic fines are fully biodegraded as necessary. Submit details of the biofilter and the biofilter stack. Clarify if the odour control measures for the facility will include maintaining the building under a negative pressure. Clarify what are the plans for the segregated organic waste and place these plans in the context of the plans for the management of organic fines. In regard to taking in segregated organic waste, explain how the applicant will ensure the turn-around time will be sufficient to prevent and control odours and explain how the proposal conforms to BAT.

### RESPONSE

- (i) State whether it is intended that the proposed drying system will ensure the organic fines are fully biodegraded and can meet the appropriate standards for stabilised biowaste, e.g. respirometry standards as set out in the EPA technical guidance document *Municipal Solid Waste – Pre-treatment and Residuals Management, Consultation Draft* (or final document if published).

The EPA technical guidance document "*Municipal Solid Waste – Pre-treatment and Residuals Management*" has been published as a final issue document. The document sets out the technical meaning of 'stabilisation' as a validation required for the pre-treatment of bio-stabilised residual wastes as follows:

*"stabilisation' means the reduction of the decomposition properties of biowaste to such an extent that offensive odours are minimised and that the Respiration Activity after four days (AT4) is <10 mg O2/g DM (until 1-1-2016), and <7 mg O2/g DM thereafter."*

The applicant is currently obtaining details on specifications, prices and workings of a suitable drying system from several potential suppliers. Full details will be submitted to the Agency once details are available. One of the requirements specified for the system will be

that the achievable respiration activity levels of  $<10$  mg O<sub>2</sub>/g DM after four days is attainable.

**(ii) Explain the principles of operation of the drying system and explain how the applicant will ensure the organic fines are fully biodegraded as necessary.**

The principle of a drying tunnel is to reduce the moisture content of waste. This stabilised and reduced volume of waste will be more suitable for (i) landfilling and (ii) use in energy recovery (e.g. refuse derived fuels). This principle will be applied to the organic fines fraction of waste which will be produced from the manual and mechanical separation of mixed municipal and commercial waste streams.

It is proposed to have seven drying tunnels at the facility, six of which will operate at any one time. Waste will be dried by air convection. This will drive off the excess moisture in the waste reducing (i) its volume and (ii) biological activity (reducing respiration activity levels and increasing its stability). Typically 25–30% w/w of water and carbon dioxide will be lost, leading to a final moisture content of  $<20\%$  w/w. High airflow rates and dehumidifying of recirculated process air will provide for effective drying.

Process air will typically be changed 3-4 times every hour and the spent or exhausted air will be transported directly to the proposed biofilter system.

The assurance that the organic material will be biodegraded fully will be met through achieving a respiration activity levels of  $<10$  mg O<sub>2</sub>/g DM after four days.

**(iii) Submit details of the biofilter and the biofilter stack.**

All air from inside the drying tunnels will be directed to an internal biofilter, which will be located adjacent to the drying tunnels in Building No. 1. In order to ensure that the biofilter media is preserved, an acid scrubber will be fitted which will remove ammonia, amines and small particulates prior to discharge to the biofilter.

The biofilter will be adequately sized to treat up to 35,000 m<sup>3</sup>/hr from the tunnel process. Typical biofilter size requirements range from 50-150 m<sup>3</sup>/m<sup>2</sup>/hour. Based on experience it is considered that an area of 300m<sup>2</sup> will be sufficient for the proposed biofilter.

A preventative maintenance programme will be implemented for the acid scrubber and biofilter. The system will be maintained in good operational condition. The moisture of the biofilter will be maintained to ensure that no drying out occurs. Differential pressure will be



measured weekly to ensure that adequate air is flowing through the filter bed. The biofilter media will be replaced every three years.

One point emission to the atmosphere is proposed as part of this abatement system. All air from inside the drying tunnels will be directed to an internal biofilter, which will be connected to a stack to be located in Building No. 1. (refer to Drawing No. **DG00019-01 F02** for the location of the emission point).

**(iv) Clarify if the odour control measures for the facility will include maintaining the building under a negative pressure.**

The building will not be maintained under negative pressure. This is not considered a practical odour abatement measure given that doors will need to be opened and closed as necessary for the delivery and export of materials into and out of buildings. As an alternative it is proposed to install two types of odour abatement described as follows:

- (a) For the drying tunnels to be located in Building No. 1 a biofilter system and associated stack will abate odours resulting from the drying of organic fines, and
- (b) A Mist-Air system is also proposed within the waste reception area in Building No. 2. This system will be installed above all dust emitting and odour emitting equipment and above all doors. This system will reduce the amount of dust and odours emitted from the process even when doors are opened for delivery and export of waste materials. Details of the proposed system are attached in **Appendix 1**.

**(v) Clarify what are the plans for the segregated organic waste and place these plans in the context of the plans for the management of organic fines.**

An estimated 3,000 tonnes per annum of segregated organic waste will be stored at the facility. This waste will be sourced from the "brown bin" waste collection (household and commercial) within the Munster Region. It is anticipated that the 'roll out' of the brown bin waste collection will continue in the Limerick/Clare/Kerry region as recommended in the Waste Management Plan for Limerick/Clare/Kerry Region 2006-2011.

The organic waste will be stored only at the proposed facility. It is not anticipated that it will be processed or treated in any way. This material will be stored in covered containers in Building No. 2. This building will be equipped with a Mist-Air system which will reduce the amount of dust and odours emitted from the building even when doors are opened. This waste will be transported on average once a week to O'Toole Composting based in Co Carlow, or to a similar appropriate licensed facility, for treatment.

All other compostable and peutrescibles will be collected and brought to the facility as part of the mixed municipal solid waste mix and will be mechanically separated and stabilised on site using a controlled drying system. This waste stream will then be either reused as Refuse Derived Fuel (RDF) or sent to landfill for disposal.

The waste stream for the segregated organic waste and the organic fines resulting from processing of mixed municipal solid waste will not interact in any way.

**(vi) In regard to taking in segregated organic waste, explain how the applicant will ensure the turn-around time will be sufficient to prevent and control odours and explain how the proposal conforms to BAT.**

It is proposed to accept up to 3,000 tonnes per annum of segregated organic waste (brown bin waste) at the facility. This waste will be delivered in enclosed or covered vehicles and stored indoors on site. Based on the proposed annual tonnages of segregated organic material it is considered practicable to transport this material from the proposed facility to a suitable composting facility on average once a week. The waste will be stored indoors where an odour abatement system (Mist-Air System) will be operational at all times. There is currently no Best Available Technology (BAT) guidance notes specifically for the handling and storage of segregated organic waste. However it is proposed to comply with *BAT Guidance Note for the Waste Sector (Transfer)*. This will include implementing management and control techniques including the following:

- Ensure that the transport of all segregated organic material is in covered or enclosed vehicles,
- All segregated organic waste will be stored indoors where an odour abatement system is in place,
- All segregated organic waste will be removed from site no less than once a week, and
- Regular inspection and monitoring of the storage area will be undertaken.

## ITEM 6 - DUST

***Dust: Justify the assertion that “the frequency of meteorological conditions that lead to the suspension of dust particles is low” and submit the relevant meteorological data to support the assertion. Review the estimate of dust levels taking into account the proposed biomass CHP as well as the waste processing activities and the traffic.***

### RESPONSE

Chapter 9 of the EIS - Air Quality - assessed the likelihood of dust levels resulting from the proposed facility. In making this assessment, proposed work practices and typical meteorological conditions were taken into consideration. These elements would have a substantial influence on levels of dust arising as a result of the proposed facility.

Meteorological data for Valentia was used to determine the local weather conditions for the site. The Met data wind rose for Valentia was consulted (this is shown attached - **Figure 6.1**). Rainfall data for Valentia was also obtained and demonstrated a 30 year mean monthly rainfall of 1430 mm. This was compared to rainfall data for Dublin Airport which is substantially less at 732mm. A higher than average rainfall level demonstrated for the region would lead to decreased levels of suspended dust.

The assessment proposed several mitigation measures in order to control dust emissions on site. A sweeper will be used on site as an alternative method to wheel cleaning. Regular sweeping of the facility with a sweeper will control the amount of dust generated. In addition, roof water run-off will be collected and used in a mobile water sprayer which will be deployed during extended dry weather conditions to control dust emissions. All processing and storage of materials will take place indoors.

The original site layout has also been updated based on a Response to a Further Information Request issued by Kerry County Council as part of the planning application process. The proposal to include a Combined Heat and Power plant is no longer included.

A Mist-Air system is also proposed within the waste reception area in Building No. 2. This system will be installed above all dust emitting and odour emitting equipment and above all doors. This system will reduce the amount of dust and odours emitted from the process even when doors are opened for delivery and export of waste materials. Details of the proposed system are attached to **Appendix 1**.

The combination of site management practices as specified above and the meteorological conditions (higher than average rainfall levels) will reduce the risk of dust generation.

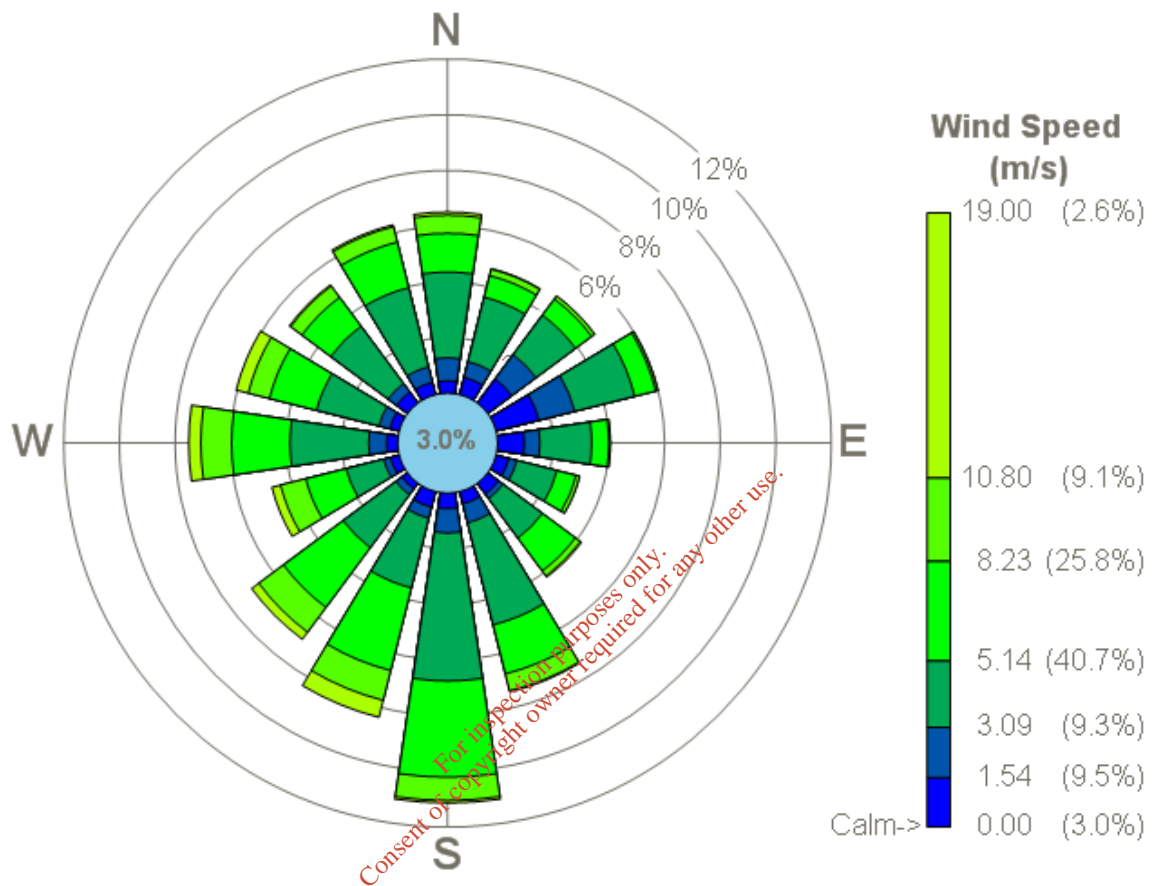


Figure 6.1 2005 Wind Rose from nearest meteorological station (Valencia Observatory)

## ITEM 7 - SURFACE WATER

**Surface Water: Confirm where the emission from SW1 enters the eastern tributary. Explain why there were Lamprey assessment locations (E-C and E-S) on the Eastern tributary but not the Western tributary of the Gweestin river. Explain the hydrological impacts on the Eastern and Western tributaries due to changes in the flow regimes of streams/drains draining the proposed development. In particular explain how site drainage will affect drainage/flooding issues in the area (including the Western and Eastern tributaries and the Gweestin river). Confirm and explain how the proposed development will conform to the requirements specified by the South Western Regional Fisheries Board in its letter dated 04/04/2008 (EIS Appendix A) regarding the protection of the Gweestin river and the Western and Eastern tributaries. Complete table I.2 (i) of the licence application form.**

### RESPONSE

**(i) Confirm where the emission from SW1 enters the eastern tributary.**

SW1 is the surface water discharge location which is the outfall from the attenuation pond. The location where this drainage ditch enters the eastern tributary is shown on **Drawing No DG0022-01 F02.**

**(ii) Explain why there were Lamprey assessment locations (E-C and E-S) on the Eastern tributary but not the Western tributary of the Gweestin River.**

Sites E-C and E-D on the Eastern tributary were chosen for Lamprey assessment as these sites are within the portion of the tributary that is within the Castlemaine Harbour SAC. The Western tributary is not within the SAC and therefore it was considered unnecessary to locate lamprey assessment locations on the Western tributary. In addition, it was noted during the desktop study and field sampling for the surface water assessment that water quality in the Western tributary is poor, and is unlikely to support lamprey.

(iii) ***Explain the hydrological impacts on the Eastern and Western tributaries due to changes in the flow regimes of streams/drains draining the proposed development. In particular explain how site drainage will affect drainage/flooding issues in the area (including the Western and Eastern tributaries and the Gweestin River)***

The existing site is drained by a number of drains adjacent to and within the site. These drains eventually discharge to either the western or eastern tributaries of the Gweestin River. The existing drainage of the site is shown on **Drawing No. DR0005-01 - P01** which was submitted TO Kerry County Council in Response to their Further Information Request. As part of the planning application process.

Approximately 60% of the site drains to the western tributary with the remaining 40% draining to the eastern tributary. This corresponds to flow rates of 71 l/s and 41 l/s respectively under a 100 year storm condition.

The surface water drainage system to be installed consists of a number of elements including;

- Filter drains along road verges where possible,
- Closed piping system to carry roof run off and drainage from other areas,
- Grit trap and hydrocarbon interceptor, and
- Attenuation pond to limit discharge from site to greenfield run-off rates.

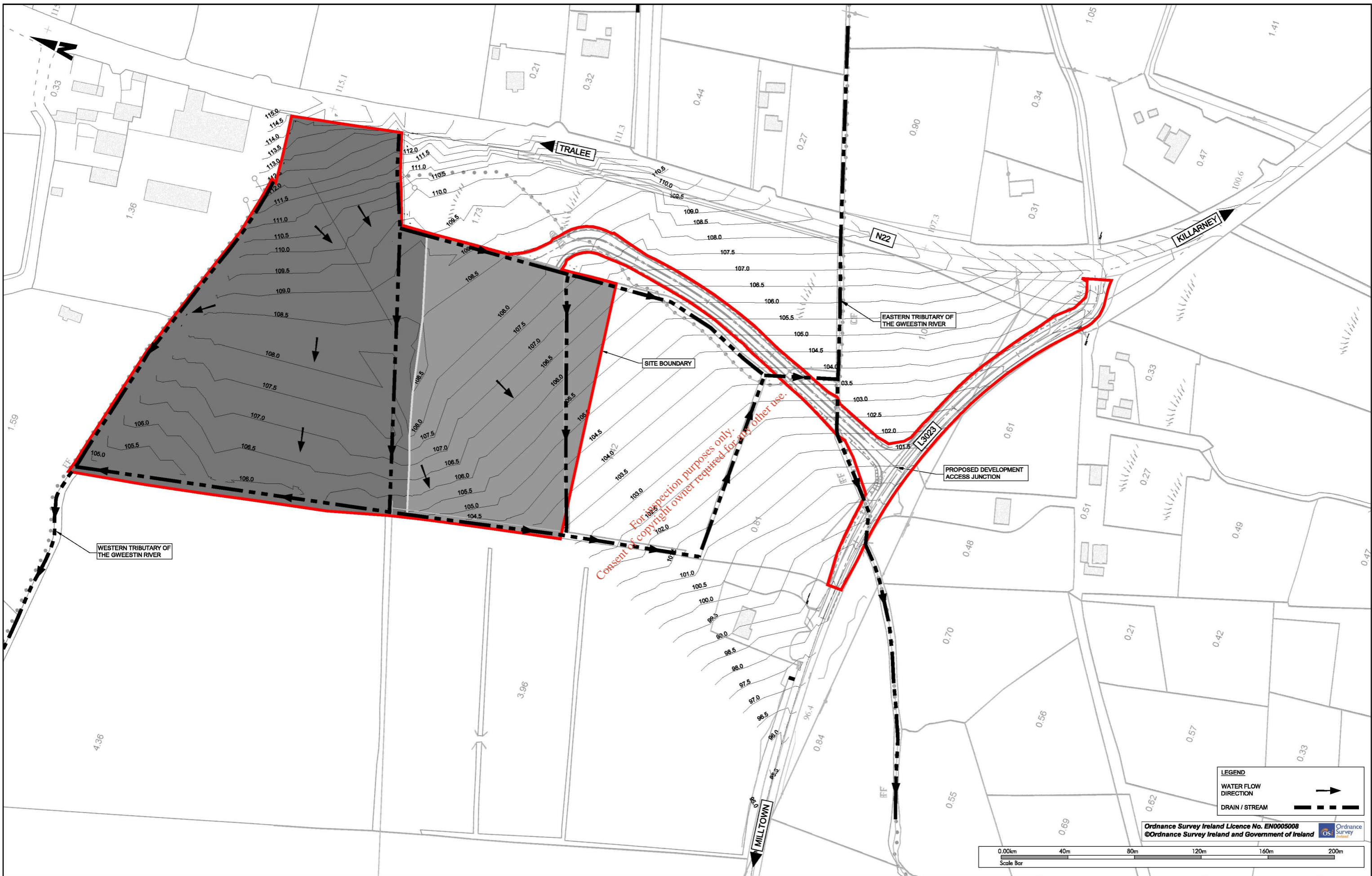
The Drainage Calculation Report (June 2009, **Appendix 3**) includes a preliminary design of the surface water system. The attenuation pond was sized for a 30 year storm giving a required storage volume of 584 m<sup>3</sup>.

The discharge from the attenuation pond as shown in **Drawing No. DG0022-01 F02**, in the Drainage Calculation Report (June 2009) is to a drainage ditch on the western edge of the site which drains to the eastern tributary of the Gweestin River.

The total (attenuated) flow rate to the discharge point is approximately 88 l/s for a 30 year storm. In a 100 year storm it is possible that the attenuation pond will overflow and that a flow rate of up to 189 l/s will discharge to the drainage ditch at the outfall point.

Based on the cross-sectional area and slope of the drainage ditch it is estimated that it has a conveyance capacity of 1.53m<sup>3</sup>/s, suggesting that during the predicted 100 year event no flooding in the adjacent lands will occur.





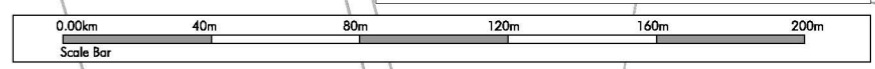
For inspection purposes only.  
Consent of copyright owner required for any other use.

**LEGEND**

WATER FLOW DIRECTION

DRAIN / STREAM

Ordnance Survey Ireland Licence No. EN0005008  
©Ordnance Survey Ireland and Government of Ireland



**NOTES**

1. This drawing is the property of RPS Consulting Engineers it is a confidential document and must not be copied, used, or its content divulged without prior written consent.
2. DO NOT SCALE, use figured dimensions only, if in doubt ask.
3. Levels are in metres to local datum.

No.	Date	By	App	Amendment / Issue
PD1	23.08.09	A.N.		FUTHER INFORMATION REQUEST

Client			
<b>KERRY CENTRAL RECYCLING FACILITY LTD.</b>			
Drawn By	Checked By	Approved By	Date
A.N.	P.J.G.	M.W.	June'09

	Lyr Building IDA Business & Technology Park Marvree, Galway E: ireland@rpsgroup.com	T: +353 91 534100 F: +353 91 534199 W: www.rpsgroup.com/ireland
	Project <b>KERRY CENTRAL RECYCLING FACILITY LTD. PLANNING APPLICATION</b>	
Drawing Status	Scale / Sheet Size	
PLANNING	1:1000 @ A1	1:2000 @ A3

Drawing Number	Rev
<b>DR0005/01</b>	<b>P01</b>
Title	
<b>EXISTING SURFACE WATER DRAINAGE</b>	
(Sheet 1 of 1)	

**(iv) Confirm and explain how the proposed development will conform to the requirements specified by the South Western Regional Fisheries Board in its letter dated 04/04/2008 (EIS Appendix A) regarding the protection of the Gweestin river and the Western and Eastern tributaries.**

The South Western Regional Fisheries Board made the following recommendation in their letter dated 4<sup>th</sup> April 2008: *“To ensure protection of the Gweestin, the Board recommends that all site waters (site surface/ storm water/contaminated/ treated effluent) be disposed using sustainable drainage methods utilising techniques such as permeable paving, soil infiltration, percolation, wetlands etc. There should be no culvertion, interference or modification of any fish bearing watercourses. All liquid waste generated on site should be controlled and contained in adequately sized effluent storage facilities with effective bunding”*.

Detailed mitigation measures to protect the surface water environment during construction and operation of the proposed facility were set out in **Section 5.5 ( Chapter 5 - Surface Water)** of the EIS and were further detailed in the Drainage Calculation Report which was submitted as part of the waste licence application. An update of Chapter 5 of the EIS and the Drainage Calculation Report have since been made (due to the relocation of the proposed access road as requested by Kerry County Council following a Further Information Request as part of the planning application process). These documents are attached in **Appendices 2 and 3**. The recommendations of the South Western Regional Fisheries Board have been taken into full consideration. Proposed mitigation measures include the following:

1. **Process Effluent:** All drainage from process areas will be directed to an effluent tank for tankering to Tralee Wastewater Treatment Plant. This has been agreed with Kerry County Council in writing (see Item 9).
2. **Surface Water Run-Off:** All non-process paved and roofed areas will be drained according to sustainable drainage system (SUDS) principles where possible as outlined above. Petrol/oil interceptors will be located at any outfalls to watercourses. The surface water drainage system for the proposed development will include sufficient flow attenuation to ensure no significant changes in maximum and minimum flow rates of the streams to which the site drains. A pond is proposed as part of this system for attenuation. This system will be properly maintained with a programme of regular cleaning, maintenance and inspection of the runoff treatment system to ensure the system functions correctly.

3. **Foul Water:** Effluent from on-site facilities (toilets, canteens etc) will be discharged to ground via a raised polishing filter. Effluent ortho-phosphate concentrations will not exceed 0.5mg/l. Based on maximum effluent discharge rates and the estimated 95 percentile and median flows of the eastern stream to which the discharged effluent will drain, the maximum elevation of ortho-phosphate in the receiving waters over the operational lifetime of the proposed development will be 0.00365 mg/l at 95 percentile low flows and a maximum elevation of 0.00071mg/l at median stream flows. This constitutes a very minor input relative to other phosphorus inputs upstream of the proposed development.
4. **Site Operations:** In order to mitigate for potential pollution of surface waters with effluent from the material recovery facility, all waste delivery, storage and processing areas will be fully roofed against rain, bunded to contain any accidental spillages, and drained on an impervious surface to a holding tank for tankering to a waste water treatment plant.
5. **Culvertation/Interference/Modification of Watercourse**

It is necessary to relocate the access road to the site to ensure that sufficient site distances are provided at the junction with the Milltown Road. This will result in the widening of the Milltown Road in the area of the junction and the access road crossing the eastern tributary of the Gwestin River. In order to comply with the requirements of the letter issued by the South Western Regional Fisheries Board it is proposed that the existing culvert on the Milltown Road will be extended by the use of a bottomless culvert and the new crossing of the tributary will be by means of a bridge structure completely spanning the stream and banks to ensure that there is no impact on the stream.

**(v) Complete table I.2 (i) of the licence application form**

Table I.2 (i) of the licence application form has been completed and is attached overleaf.

Table I.2(i) SURFACE WATER QUALITY

(Sheet 1 of 2) Monitoring Point/ Grid Reference: \_\_\_\_\_

Parameter	Results (mg/l) 14 <sup>th</sup> April 2008			Sampling method <sup>2</sup> (grab, drift etc.)	Normal Analytical Range <sup>2</sup>	Analysis method / technique
	G2	G4	TA2			
pH	7.4	7.7	7.6	7.2		
Temperature	9.4	9.4	8.7	11.5		
Electrical conductivity EC	140	140	130	140		
Ammoniacal nitrogen NH <sub>4</sub> -N	<0.023	<0.023	0.036	0.040		
Chemical oxygen demand	7.7	5.3	<5.0	43.8		
Biochemical oxygen demand	<1.0	<1.0	<1.0	<1.0		
Dissolved oxygen DO	12.2	11.4	13.3	9.6		
Calcium Ca	-	-	-	-		
Cadmium Cd	<0.02	<0.02	<0.02	<0.02		
Chromium Cr	<0.05	<0.05	<0.05	<0.05		
Chloride Cl	24.3	25.1	27.3	29.3		
Copper Cu	<0.02	<0.02	<0.02	<0.02		
Iron Fe	0.33	0.29	0.14	0.77		
Lead Pb	<0.1	<0.1	<0.1	<0.1		
Magnesium Mg	-	-	-	-		
Manganese Mn	0.06	0.05	0.03	0.04		
Mercury Hg	<0.05	<0.05	<0.05	<0.05		



Surface Water Quality (Sheet 2 of 2)

Parameter	Results (mg/l) 14 <sup>th</sup> April 2008				Sampling method (grab, drift etc.)	Normal Analytical Range	Analysis method / technique
	G2	G4	TA2	TB2			
Nickel Ni	<0.05	<0.05	<0.05	<0.05	Grab		
Potassium K	-	-	-	-			
Sodium Na	15.25	15.48	16.40	18.70	Grab		
Sulphate SO <sub>4</sub>	11.4	11.8	6.20	9.96	Grab		
Zinc Zn	0.02	0.02	0.02	0.02	Grab		
Total alkalinity (as CaCO <sub>3</sub> )	-	-	-	-			
Total organic carbon TOC	-	-	-	-			
Total oxidised nitrogen TON	-	-	-	-			
Nitrite NO <sub>2</sub>	-	-	-	-			
Nitrate NO <sub>3</sub>	-	-	-	-			
Faecal coliforms ( /100mls)	-	-	-	-			
Total coliforms ( /100mls)	-	-	-	-			
Phosphate PO <sub>4</sub>	-	-	-	-			

Consent of copyright owner required for any other use.  
For inspection purposes only.

## ITEM 8 - STORM WATER SEWER DESIGN

**Storm water sewer design: Justify the use of a 1 year return period in the storm sewer design. Submit the drawing of the attenuation pond (ref. DR0004/01). Clarify if a grit interceptor will be installed at the outfall of the storm water discharge and submit details accordingly. If a grit interceptor (recommended in the EIS) is not to be used then justify how the proposed system that includes filter drains will ensure suspended solids will be adequately controlled.**

### RESPONSE

**(i) Justify the use of a 1 year return period in the storm sewer design.**

“Recommendations for Site Development Works for Housing Areas” as issued by the Department of the Environment, Heritage and Local Government, October 1998 recommends a 1 year return period be used for the design of drainage pipework for sites with an average surface gradient greater than 1%. The storm water system has been designed against surcharge and flooding for the 1 year return period. The storm water system has also been checked for the 5 year return period and will not flood.

**(ii) Submit the drawing of the attenuation pond (ref. DR0004/01).**

The attenuation pond drawing, **Drawing No. DR0004-01 F02**, is attached in the Drainage Calculation Report (June 2009) - **Appendix 3**.

**(ii) Clarify if a grit interceptor will be installed at the outfall of the storm water discharge and submit details accordingly. If a grit interceptor (recommended in the EIS) is not to be used then justify how the proposed system that includes filter drains will ensure suspended solids will be adequately controlled.**

The Drainage Calculation Report (June 2009), which is included in **Appendix 3**, includes a preliminary design of the surface water system.

A combination of systems has been designed for the treatment and discharge of surface water from the site including:

- Filter drains along road verges where possible,

- Closed piping system with gully pots to carry roof run off and drainage from other areas,
- A Catch Pit upstream of the Hydrocarbon interceptor
- Hydrocarbon interceptor, and
- Attenuation pond to limit discharge from site to greenfield run-off rates.

The bypass hydrocarbon separator proposed (NSBD15) to be incorporated as part of the surface water network provides 1.5m<sup>3</sup> of slit/grit storage capacity. The storage capacity is incorporated into the separators to provide slit/grit storage when filter-drains are used as the method of drainage.

The attenuation pond was sized for a 30 year storm giving a required storage volume of 584 m<sup>3</sup>. Grit removal will be accomplished by the use of gully pots, the catch basin and the hydrocarbon interceptor. The attenuation pond will also allow for further settling of suspended solids.

*For inspection purposes only.  
Consent of copyright owner required for any other use.*



## ITEM 9 - PROCESS EFFLUENT

**Process Effluent:** - *Confirm the applicant has an agreement with the relevant sanitary undertaker to dispose of process effluent at the Tralee sewage treatment works. Reference should be made to Section I.3 of the licence application form regarding the information required. Clarify how the volume of process effluent expected to be generated was determined.*

### RESPONSE

The wastewater generated within the facility as part of the processing activities will be stored in a holding tank on site. It is proposed that this wastewater will be tankered to the Tralee WWTP for treatment.

A letter issued by Mr. Seamus O'Mahoney, Executive Engineer, Water Services Section, Kerry County Council on the 19<sup>th</sup> June 2009 confirming the acceptance of leachate by Tralee Wastewater Treatment Plant from the proposed Kerry Central Recycling Facility at Scart/Caherdean is attached.

The quantity of process wastewater that will be generated is estimated to be an average of 220,000 litres per annum. This figure was determined based on a proposed annual intake of 95,000 tonnes of material. Typical process wastewater volumes and constituents which are generated at the Killarney Waste Disposal site in Aughacureen were analysed. This information was used to determine the proposed volume and content of the process wastewater for the proposed facility.

Typical constituents of this type of wastewater from the existing Killarney Waste Disposal facility at Aughacureen are shown in **Table 9.1**.

**Table 9.1 EPA Typical Wastewater Characteristics, Surface Water Standards and Typical Characteristics of Process Effluent**

Parameter	Unit	Process effluent	Typical Influent Wastewater Characteristics	Surface Water Standards*
SS	mg/l	-	163	N/A
BOD <sub>5</sub>	mg/l	977.9	168	N/A
COD	mg/l	2800	389	N/A
O-PO <sub>4</sub>	mg/l	-	7.1	-
pH	mg/l	7	7.5	N/A
Total-coli	CFU per 100ml	-	1 x 10 <sup>8</sup>	N/A
E-coli	CFU per 100ml	-	4 x 10 <sup>7</sup>	-
Total-N	mg/l	-	40.6	-
NH <sub>3</sub> -N	mg/l	-	31.5	-
NO <sub>3</sub> -N	mg/l	-	0.25	50
NO <sub>2</sub> -N	mg/l	-	0.04	-
Ammonia	mg/l NH4-N	20.73	-	4
TON	mg/l N	4.2	-	3
Magnesium	mg/l	37.5	-	-
Potassium	mg/l	122.88	-	-
Sodium	mg/l	177	-	-
Cadmium	mg/l	0.03	-	0.005
Lead	mg/l	0.41	-	0.05
Nickel	mg/l	0.39	-	-
Zinc	mg/l	2.89	-	5
Chloride	mg/l	206.3	-	250
Sulphate	mg/l	647.4	-	200
Total Alkalinity	mg/l	1109.2	-	-
Iron	mg/l	28.41	-	2
Copper	mg/l	1.75	-	0.1
Manganese	mg/l	1.68	-	1
Chromium	mg/l	0.1	-	0.05
Mercury	mg/l	<0.00005	-	0.001
Calcium	mg/l	0.147	-	-
Arsenic	mg/l	0.005	-	0.1

\*S.I. No. 294/1989 EC (Quality of Surface Water intended for the Abstraction for Drinking Water) Regulations

The resulting population equivalents of the process influent based on BOD and flow are shown in **Table 9.2** below.

**Table 9.2 Population Equivalent**

Parameter	Units	Loading	Wastewater Flow per capita	PE	Tralee WWTP PE	% Increase in PE
BOD	g/l	0.9779	60	9.83	8,415	0.12
Flow	l/day	603	180	3.35	8,415	0.04

The constituents of the process effluent have been compared against typical influent wastewater characteristics (EPA Wastewater Treatment Manual,1999) and surface water quality standards S.I. No. 294/1989 EEC Regulations in **Table 9.1**. From this table it can be seen that the process effluent exceeds the surface water quality standards and the typical wastewater characteristics for a number of parameters. The PE of the Tralee WWTP was estimated to be 8,415 in the wastewater discharge licence application which amounts to a daily flow of approximately 1,893 m<sup>3</sup>/day (based on a flow of 225l/PE). A 15,900 litre capacity tanker of process effluent from the Kerry Central Recycling Ltd. facility will therefore represent approximately 0.8% of the daily flow to Tralee WWTP. The process effluent will have a minimal impact on the treatment capabilities of the wastewater treatment plant and the resulting impact of the process influent on the receiving waters will be negligible.

For inspection purposes only.  
Consent of copyright owner required for any other use.



19<sup>th</sup> June 2009

Ms. Maeve Walsh,  
RPS,  
Lyrr Building,  
IDA Business and technology Park,  
Mervue,  
Galway.

<b>RPS</b>		Project No
Recipient		M. Walsh.
Register No.	31	File Ref
Date Rec'd	22	2009
PM		
Copied to	A	I
	C	Sign
		Date
Scanned		Date

**Re: Planning Ref 08/2415 disposal of leachate from proposed recycling facility at Scart, Farranfore**

Dear Ms. Walsh,

Kerry County Council is willing to consider the acceptance of leachate from the above proposed recycling facility at Tralee Waste Water Treatment Plant as follows:

- Maximum Volume of leachate to be two number 16,000 litre tankers per month.
- Two weeks between each tanker delivery.
- Tankers to be emptied over a minimum period of one hour.
- Delivery dates to be agreed with the treatment plant manager one week prior to delivery.
- Maximum BOD and COD of leachate to be 1200mg/litre and 3500mg/litre respectively.
- PH of leachate to within the 6.5- 9.5 range.
- One leachate sample per month to be analysed by Kerry County Council at leachate supplier's expense. Kerry County Council shall decide the extent of this testing and may include tests for any dangerous substances listed in current or future regulations.
- Leachate is to be free of any harmful substances that could prevent the landspreading of sludge from Tralee wastewater treatment Plant.



- Kerry County Council shall require payment of an appropriate disposal charge for leachate delivered to Tralee wastewater treatment Plant. Increased or additional charges may be required at Kerry County Councils discretion.
- Kerry County Council reserves the right not to accept leachate from this proposed recycling facility if the leachate interferes with the biological processes within the treatment plant or has a harmful effect on either final effluent quality or sludge produced by the plant.
- Any acceptance of leachate shall be subject to the provisions of the Water pollution Acts.
- Any agreement would be subject to annual reviews.

Yours sincerely,



**Seamus O'Mahony**  
**Executive Engineer**

*For inspection purposes only.  
Consent of copyright owner required for any other use.*

## ITEM 10 - SANITARY EFFLUENT

**Sanitary Effluent:** Clarify what is the depth of the polishing filter to be used in the sanitary effluent treatment system and justify that it is sufficient to prevent the contamination of groundwater.

### RESPONSE

A site suitability assessment was carried out in May 2008 to assess the appropriate wastewater treatment system for the site. This consisted of a visual assessment, trial hole and percolation tests. The Site Characterisation Form is included in Appendix A of the Drainage Calculation Report (June 2009). The assessment determined that there is adequate percolation and treatment of wastewater can be carried out by utilizing a raised bed soil filter.

The base of the soil filter will be at a height of 1.2m above the highest water mark. This is in accordance with the minimum depth requirements of the EPA Wastewater Treatment Manual.

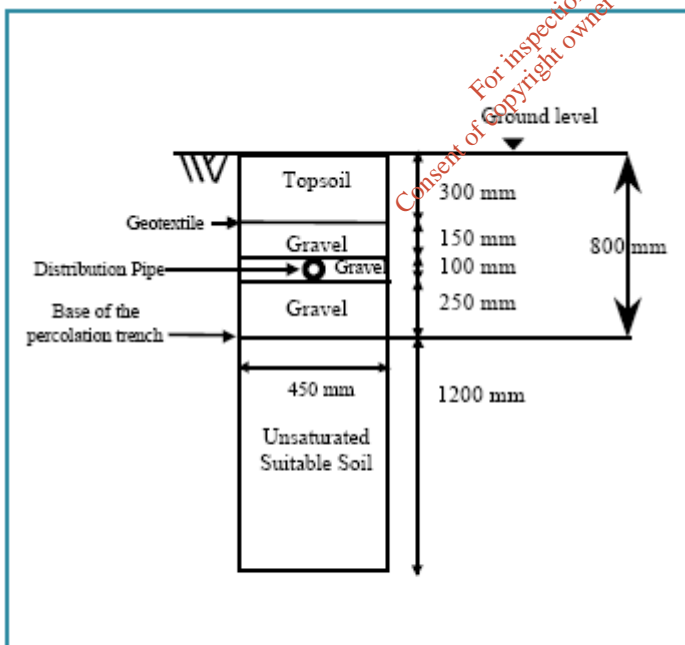


FIGURE 12: SECTION OF A PERCOLATION TRENCH

(Source: EPA Wastewater Treatment Manual)

## ITEM 11 - NOISE

### Noise

- **Complete and submit Table E.5 (i) for each source of noise emissions.**
- **Provide a full copy of the report of the noise model and amend as necessary to include a map indicating predicted noise levels at the noise sensitive locations. Clarify the contribution of the facility to noise levels regardless of any changes in traffic.**
- **Clarify what was the nearest modelled location in table 10.12 of the EIS, "Predicted noise levels from internal sources at the nearest modelled location".**
- **Submit the modelled data for noise locations N1 and N3 along with N2 as per table 10.13 and include details of the  $L_{10}$  and  $L_{90}$  levels for these three locations.**
- **Complete table I.6 (i) of the licence application form.**

### RESPONSE

**(i) Complete and submit Table E.5 (i) for each source of noise emissions.**

**Table E.5 (i)** for each source of noise emissions has been completed and is attached overleaf

For inspection purposes only.  
Consent of copyright owner required for any other use.



**Table E.5(i): NOISE EMISSIONS - Noise sources summary sheet**

Source	Emission point Ref. No	Equipment Ref. No	Sound Power levels <sup>1</sup> L <sub>w</sub> dB(A)	Octave bands (Hz)								Impulsive or tonal qualities	Periods of Emission	
				Sound Pressure <sup>1</sup> Levels dB(unweighted) per band										
				31.5	63	125	250	500	1K	2K	4K	8K		
	-	-	110	No Spectral data available								-	Operating hours only	
C&D Line	-	-	83	No Spectral data available								-	Operating hours only	
Municipal Solid Waste	-	-	83	No Spectral data available								-	Operating hours only	
	-	-	90	No Spectral data available								-	Operating hours only	
	-	-	90	No Spectral data available								-	Operating hours only	
	-	-	83	No Spectral data available								-	Operating hours only	
	-	-	98	No Spectral data available								-	Operating hours only	
	-	-	82	No Spectral data available								-	Operating hours only	

1. For items of plant sound power levels may be used.

- (ii) **Provide a full copy of the report of the noise model and amend as necessary to include a map indicating predicted noise levels at the noise sensitive locations.**

As part of the EIS a detailed noise assessment was completed. This included baseline noise monitoring at three boundary locations and making predictions of noise levels at four noise sensitive locations (NSL's). A noise model was not completed as part of this assessment.

Drawing **MI00013F01** shows the noise monitoring locations and the NSL's. Also detailed on this drawing are the predicted contribution of noise from the proposed facility at the NSL's.

The baseline noise survey and method of predicting noise levels are detailed in this and the following subsections.

### Baseline Noise Survey

A daytime noise survey was carried out on the 28<sup>th</sup> February 2008 at three boundary locations. Three 30-minute measurements were recorded during the daytime at each monitoring location. The measurements taken were deemed to be representative of typical noise levels in the vicinity of the proposed facility during daytime. The equipment used during this survey was a Brüel and Kjaer Type 1 2260 Sound Level Meter with outdoor microphone protection. A description of the noise monitoring locations is presented in **Table 11.1**.

**Table 11.1 Noise Monitoring Locations**

Position No.	Description
N1	Southern Boundary of the Proposed Site
N2	North Eastern Boundary of the Proposed Site
N3	Western Boundary of the Proposed Site

The baseline noise measurement locations were chosen to represent as best as practicable, the boundary locations to the proposed site that may be affected during the construction and operational phase of the site and to represent typical noise levels, which would be experienced by residences. A description of these locations and the noise levels measured are detailed in **Table 11.2** below.

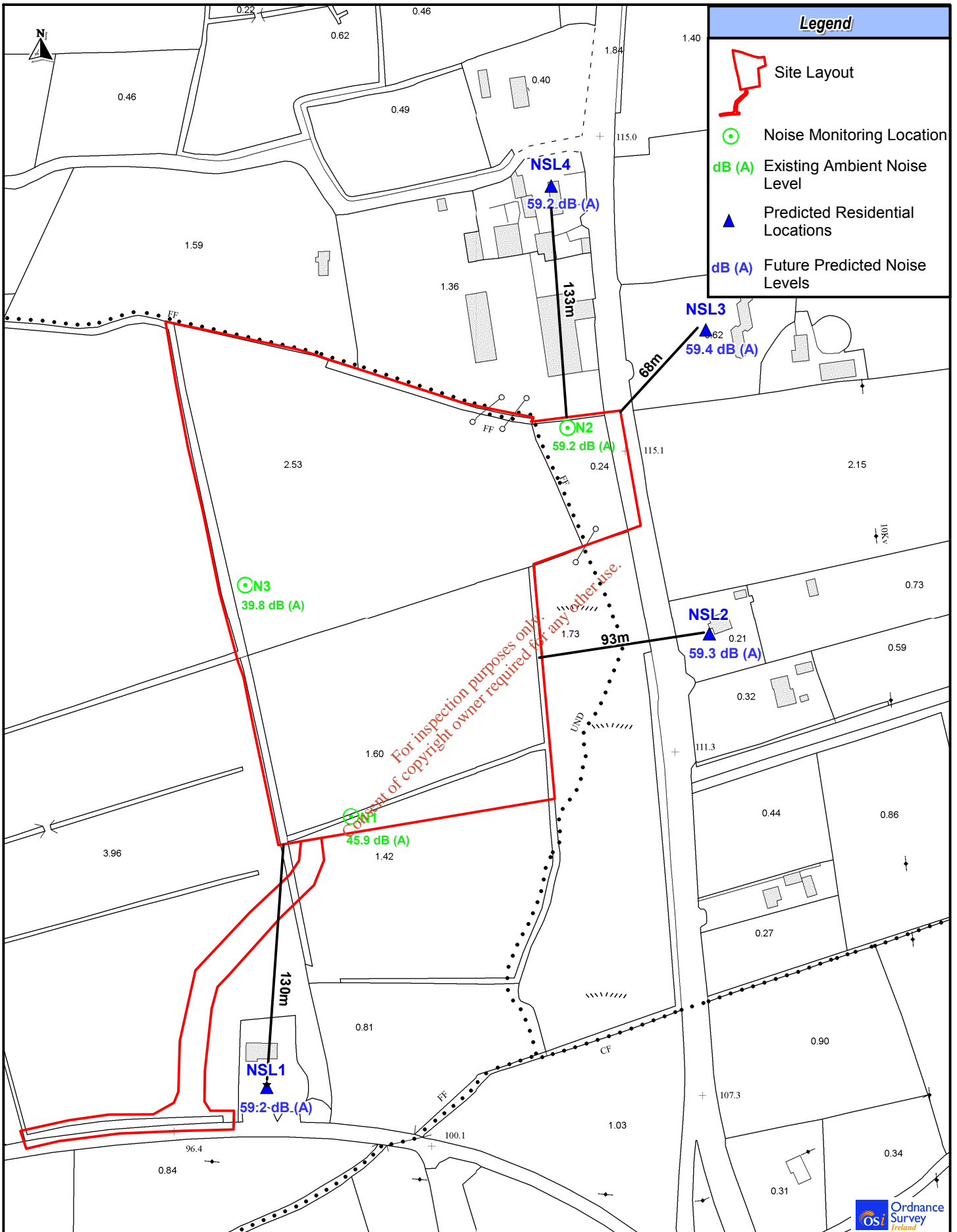
**Table 11.2 Summary of Baseline Noise Measurements**

Location	Date	Time	L <sub>Aeq</sub>	L <sub>AMax</sub>	L <sub>AMin</sub>	L <sub>A10</sub>	L <sub>A90</sub>	Notes
N1	28/02/08	12:44	45.9	77.5	26.9	44.8	32.9	Dominant source traffic on N22 and to a lesser extent on local road. Background Birdsong. Dog at nearby house, aircraft passed overhead, distant agricultural machinery audible.
N2		13:32	59.2	76.2	29.6	63.1	43.2	Traffic on the N22 is the dominant noise source. Background Birdsong, distant agricultural machinery audible during lulls in traffic noise. Noise from adjacent commercial premises audible.
N3		14:19	39.8	69.3	27.6	41.6	32.6	Background birdsong is dominant noise source, noise from N22 audible, farm machinery audible in distance.

It should be noted that at monitoring point N2 the existing ambient noise levels were recorded at 59.2 dB (A). The noise was attributed to a combination of traffic on the adjacent road, noise from the existing commercial premises and background birdsong and agricultural activities. This level is over the EPA guideline of 55dB (A) for noise levels outside noise sensitive areas during the daytime (08:00 – 22:00).

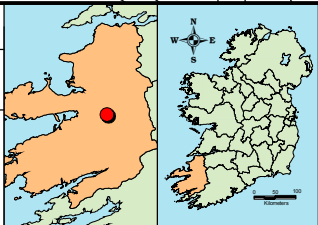
**Predicted Noise Levels at Noise Sensitive Locations (NSL’s)**

Noise levels were also predicted at four NSL’s. This prediction took account of the contribution that the proposed facility will have to future noise levels on its own and in



Legend	
	Site Layout
	Noise Monitoring Location
<b>dB (A)</b>	Existing Ambient Noise Level
	Predicted Residential Locations
<b>dB (A)</b>	Future Predicted Noise Levels

Project	<b>Kerry Central Recycling Facility</b>	Figure	
Title	<b>Nearest Residential Dwellings to Site Boundary</b>		
RPS Consulting Engineers Lyrr Building DA Business & Technology Park Merivee Galway		Ph: 091-534100 Fax: 091-534199 E: ireland@rpsgroup.com W: www.rpsgroup.com/ireland	



Issue Details	
Drawn: MCS	Project No. MGE0109
Checked: MW	File Ref.
Approved: WM	MGE0109MI0013F01
Scale: N.T.S.	Drawing No. Rev.
Date: July 09	MI0013 F01
<b>Notes</b> 1. This drawing is the property of RPS Consulting Engineers. It is a confidential document and must not be copied, used, or its contents divulged without prior written consent. 2. All levels are referred to Ordnance Datum, Malin Head. 3. Ordnance Survey Ireland Licence No. EN 0005009 Copyright Government of Ireland.	

combination with the existing ambient noise levels recorded. The location of these NSL's is shown on drawing **MI00013F01** and presented in **Table 11.3**.

**Table 11.3 Noise Sensitive Locations**

Location	Description
NSL1	Residential property at entrance to proposed MRF, 134m from site boundary
NSL2	Residential property at eastern boundary of site, 93m from site boundary
NSL3	Residential property at north eastern boundary of site, 68m from site boundary
NSL4	Residential property at northern boundary of site, 133m from site boundary

The noise levels that were predicted at these NSL's are set out in the following section. The methodology used in obtaining these noise levels is also set out in the following section.

**(iii) Clarify the contribution of the facility to noise levels regardless of any changes in traffic.**

The contribution of the facility to noise levels was predicted at the four NSL's and the resulting predictions have been set out in **Table 11.4**. **Table 11.5** sets out the predicted noise contribution from the proposed facility and the predicted noise levels resulting from a combination of the proposed facility and ambient noise levels (including traffic etc.).

**Table 11.4 Contribution of the proposed facility to noise levels not taking existing ambient noise levels & the acoustic properties of the MRF into account**

Noise Sensitive Location (NSL)	Predicted Noise Level (dB)
NSL1	65.3
NSL2	68.9
NSL3	72.3
NSL4	65.1

**Table 11.5 Combined existing ambient and predicted operational noise levels at the NSL's not taking acoustic properties of the MRF building into account (Worst Case Scenario)**

Location	Existing Ambient Noise Levels dB (A)	Predicted Operational Noise Levels dB (A)	Combined Existing Ambient and Predicted Construction Noise Levels dB (A)	Predicted Increase (dBA)
NSL1	59.2	65.3	66.3	7.1
NSL2		68.9	69.3	10.1
NSL3		72.3	72.5	13.3
NSL4		65.1	66.1	6.9

**Table 11.5** demonstrates that the existing ambient noise levels of 59.2dB are above the EPA guideline limit of 55dB. The predictive calculation considered a worst-case scenario in relation to likely noise sources on-site during the operation of the proposed plant. The significance of a change in noise levels at the nearest sensitive receptors may be assessed by following the guidance detailed in Table 11.6.

**Table 11.6 Significance scale for changes in noise levels (perceptible to human beings)**

Change in Noise Level	Impact Rating	EPA Glossary of Impacts	Subjective Reaction	Subjective Change	% Change in Loudness
0	No change	n/a	n/a	No change	0%
<3 dB(A)	Not Significant	Neutral, Imperceptible or Slight Impact	Barely perceptible	Negligible	10%
3 – 5 dB(A)	Minor	Significant Impact: Positive or Negative	Perceptible	Noticeable	30%
6 – 10 dB(A)	Moderate		Up to a doubling of loudness	Clearly Noticeable	70%
11–15 dB(A)	Major		Over a doubling of loudness	Substantial	100%
>15 dB(A)	Severe	Profound Significant Impact: Negative only	---	Very Substantial	>100%

The results show that there will be a moderate impact due to the increase in noise levels at NSL1, NSL2 and NSL4, however this is based on the assumption that all the noise sources are operating in the open air, and this has not taken into account the acoustic properties of the proposed MRF building. The External Wall Cladding is to be Kingspan's Optimo insulated flat architectural wall and facade system. The Sound Reduction Index R data for the Kingspan Optimo, Insulated flat architectural wall and facade system has been obtained from the Kingspan Product data sheet/brochure. The single figure weighted sound reduction  $R_w$  of the system is 27 dB.

Taking this information into account, the predicted noise levels at the facades of the nearest noise sensitive locations are detailed in Table 11.7 below.

**Table 11.7 Combined existing ambient and predicted operational noise levels at the NSL's taking acoustic properties of the MRF building into account.**

Location	Existing Ambient Noise Levels dB (A)	Predicted Operational Noise Levels dB (A)*	Combined Existing Ambient and Predicted Construction Noise Levels dB (A)	Predicted Increase (dBA)
NSL1	59.2	38.3	59.2	-
NSL2		41.9	59.3	0.1
NSL3		45.3	59.4	0.2
NSL4		38.1	59.2	-

\*Taking acoustic properties of the MRF building into account

The results of predictions for the noise sensitive locations in Tables 11.5 and Table 11.7 indicate that the predicted noise levels at the noise sensitive locations will be raised above the EPA daytime limit of 55db(A). As the existing noise levels in the vicinity of the proposed MRF are above the EPA daytime limit of 55 dB(A), it is proposed that the specific noise from combined operating equipment do not increase existing background noise levels at the nearest noise sensitive locations by more than 10dB(A), as outlined in BS4142:1997 '*Method for rating industrial noise affecting mixed residential and industrial areas*'.

The predicted noise levels set out in **Table 11.4** were predicted using the following methodology.



The noise emissions of the proposed plant machinery to be used at the facility are outlined in **Table 11.8**. In the EIS, sound pressure levels of equipment to be used at the site was referenced from similar sized MRF and from a DEFRA publication on the Update of Noise Database for Prediction of Noise on Construction and Open Sites and from BS5228-1:2009 Code of practice for noise and vibration control on construction and open sites – Part 1: Noise.

As the exact details of the make and the model of plant are not known at this stage, a conservative approach has been taken with regard to the sound power levels of the machinery by referencing sound power data has from similar waste licensed facilities. The plant and machinery expected to operate at the site are presented in Table 11.8 below.

**Table 11.8 Sound Power Data of Plant Equipment**

Noise Source	Sound Power Level, L <sub>WA</sub> dB (A)	Sound Pressure Level, L <sub>Aeq</sub> at 10 m, dB (A)
Crusher	110	82 <sup>Note 1</sup>
Shredder	-	82 <sup>Note 3</sup>
Picking Station (line with conveyor) belt)	83	55 <sup>Note 1</sup>
Trommel	110	82 <sup>Note 1</sup>
Compactor	90	62 <sup>Note 1</sup>
Lorry pulling up	98*	70*
Lorry unloading	112*	84*
Fork lift truck	114*	86*
Refuse Wagon	-	78 <sup>Note 2</sup>
Skip Wagon	-	78 <sup>Note 2</sup>
Road Sweeper	-	76 <sup>Note 2</sup>

\*Sourced from Annex C of British Standard BS 5228: 1997 – Noise and Vibration Control on Construction and Open Sites.

Note 1 Source: Previous RPS Assessment on similar sized MRF

Note 2 Source: Update of Noise Database for Prediction of Noise on Construction and Open Sites

Note 3 Noise Level supplied by manufacturer

For the calculation of noise emissions from site activities, it has been assumed that all significant noise sources outlined in **Table 11.8** will be operated simultaneously. This may be considered as worst-case scenario as machinery may operate for shorter periods and may not work simultaneously.

Predicted noise levels have been estimated using the methodology described in British Standard *BS 5228-1: 2009 – Code of practice on noise and vibration control on construction and open sites – Part 1: Noise*. While the standard is associated with noise control on

construction and open sites, the methodology outlined has been applied to the proposed MRF facility. The activity  $L_{Aeq}$  noise levels have been predicted using the sound pressure  $L_{Aeq}$  at 10m from the stationary item as detailed in Table 11.8. The activity  $L_{Aeq}$  is corrected for source-receiver distance, reflections and screening or soft ground attenuation.

**(iv) Clarify what was the nearest modelled location in table 10.12 of the EIS, “Predicted noise levels from internal sources at the nearest modelled location”.**

A noise model was not completed as part of this assessment. In Table 10.12 of the EIS the nearest location where predications were carried out was NSL1.

However the nearest noise sensitive location (NSL) is NSL3 as shown in Drawing No. **MI00013F01**. For clarity, predictions have been made for all noise sensitive locations NSL1 to NSL4 as shown in Table 11.7 and illustrated in Drawing No. **MI00013F01**.

**(v) Submit the modelled data for noise locations N1 and N3 along with N2 as per table 10.13 and include details of the  $L_{10}$  and  $L_{90}$  levels for these three locations.**

A noise model was not completed as part of this assessment. Data for baseline noise monitoring location N2 was calculated as it was the closest monitoring point to a residential dwelling. Levels were not calculated for baseline noise monitoring locations N2 or N3.

**(vi) Complete table I.6 (i) of the licence application form.**

**Table I6 (i)** of the licence application form has been completed for the boundary locations and is attached overleaf.

**Table I.6(i) Ambient Noise Assessment**

*Third Octave analysis for noise emissions should be used to determine tonal noises*

	National Grid Reference	Sound Pressure Levels		
	(5N, 5E)	L(A) <sub>eq</sub>	L(A) <sub>10</sub>	L(A) <sub>90</sub>
<b>1. SITE BOUNDARY</b>				
Location 1:	93450, 99360	45.9	44.8	32.9
Location 2:	93660, 99760	59.2	63.1	43.2
Location 3:	93270, 99560	39.8	41.6	32.6
<b>2. NOISE SENSITIVE LOCATIONS</b>				
Location 1:				
Location 2:				
Location 3:				
Location 4:				

**NOTE:** All locations should be identified on accompanying drawings.

For inspection purposes only.  
Consent of copyright owner required for any other use.

## ITEM 12 - NOISE CONTROL

### Noise

- **Justify the assertion that the acoustic properties of the MRF building will give a sound reduction of 27 dB for the entire building fabric.**
- **Submit details of proposed mitigation measures if the noise model referred to above indicates noise levels above the identified noise limits in the EIS.**
- **Confirm what operations/activities at the facility will take place indoors and what will take place outdoors.**
- **Submit details of the acoustic enclosures/screens that will be installed around the plant or equipment or near noise sensitive locations.**

### RESPONSE

- (h) **Justify the assertion that the acoustic properties of the MRF building will give a sound reduction of 27 dB for the entire building fabric.**

The External Wall Cladding is to be Kingspan's Optimo insulated flat architectural wall and façade system. The cladding is to finish 2.60m above finishing floor level and will overhang the fair faced blockwork as per elevations. Roofs are to be clad with an insulated roofing panel.

The sound energy hitting a surface can be reflected back by the surface, absorbed by the surface or transmitted through the surface. The performance of the sound insulation of a surface to resist the transmission of sound is determined by the **sound reduction index R**, or transmission loss of the sound passing through the surface. This is measured in decibels.

The direct transmission of sound is determined by **R**. This is related to the transmission coefficient, which is the ratio of sound energy that is transmitted through the partition.

$$R = 10 \text{ Log } (1/T) \text{ dB}$$

Where T = transmitted energy/incident energy

The Kingspan panels will provide some degree of sound insulation to the building fabric. The airborne sound insulation of the walls of the building will prevent excessive transmission of internal noise from the operational machinery from inside to outside where it may impact on noise sensitive properties.

The Sound Reduction Index R data for the Kingspan Optimo, Insulated flat architectural wall and facade system has been obtained from the Kingspan Product data sheet/brochure. The single figure weighted sound reduction  $R_w$  of the system is 27 dB.

**Table 12.1 Sound Reduction Index (R) Data for Kingspan Optimo Wall & Facade System**

Construction/ Material	Sound transmission loss dB Frequency (Hz)								Sound Reduction Index (R)
	63	125	250	500	1k	2k	4k	8k	
Kingspan Optimo wall & façade system	14	14	19	24	27	34	43	52	27

**Source: Kingspan Optimo, Insulated Architectural Wall System**

- (ii) **Submit details of proposed mitigation measures if the noise model referred to above indicates noise levels above the identified noise limits in the EIS.**

The existing ambient noise level of 59.2dB is above the EPA guideline limit of 55dB. The contribution that the proposed facility will make to this existing noise level, based on predictions as set out in response to Item 11, is minimal.

However in order to ensure minimal noise emissions from the proposed facility the mitigation measures as set out in **Sections 10.6.1 and 10.6.2 of the EIS** will be implemented on order to ensure noise levels resulting from the proposed facility will not impact negatively on the noise sensitive receptors identified.

Mitigation measures:

- Silencers and baffles attached to all equipment
- Enclosures for machinery situated outside the MRF building

- There are 29 no. roller shutter doors in total however these doors will remain closed for the majority of time.
- Waste Acceptance hours are from: 0700-2000 Monday – Friday and 0800 – 1800 on Saturday. Operating hours of the facility will be 24 hours per day, 6 days per week. It is envisaged that there will be no significant noise generating activity taking place prior to 08:00 hrs. The level of noise will be less at night as there will be no acceptance of waste. Processing of materials will be the sole activity occurring at night time and will take place indoors.
- Ensure where practicable that enclosures or doors/windows in buildings are properly sealed or closed when noisy waste handling and processing equipment or plant is operating inside the enclosure or building.

**(iii) Confirm what operations/activities at the facility will take place indoors and what will take place outdoors.**

All operations will take place indoors with the exception of the movement of waste collection vehicles coming in and out of the site and the proposed public drop off point for public recycling. Waste delivery and removal will be restricted to 0700-2000 hrs Monday to Friday and 0800 - 1800 on Saturday and access to the public recycling centre will be from 0800 – 2000 Monday to Sunday.

The operations/activities which will take place indoors will be the processing of the following:

1. Mixed municipal waste,
2. Source segregated waste, which includes organic waste and dry recyclables (plastic (bottles and film), paper, cardboard and packaging waste), and
3. Construction & Demolition waste

This will involve the use of the following equipment which will be located indoors:

**Table 12.1: Fixed and Mobile Sources of Machinery**

Fixed	Mobile
2 no. Trommels	2 x Skidsteers
Baler	3 x Teleporters
Wrapping Machine	2 x Forklifts
Wood Shredder	2 x Fuchs 320
Drying tunnel	1 x Sweeper
2 no. Mechanical separation and picking line	Refuse / Skip Trucks

- (iv) **Submit details of the acoustic enclosures/screens that will be installed around the plant or equipment or near noise sensitive locations.**

A generator on site will require an enclosure. It is proposed to be enclosed in an open enclosure (no roof required) on the south-western corner of the site. This enclosure will comprise of two walls to a height of 300mm above the top of the exhaust pipe and enclosing the generator at a distance of not less than one metre to allow access for maintenance etc. The entrance to the enclosure can be open provided the walls overlap.

For inspection purposes only. Consent of copyright owner required for any other use.



## ITEM 13 - NUISANCE CONTROL

**Nuisance Control:** *Justify the assertion that bird control measures are not necessary.*

### RESPONSE

The activities at the proposed MRF will be carried out to ensure that birds are not attracted to the facility. Compostables and mixed municipal waste will be accepted at the facility. However, these materials will be delivered in covered trucks and processing and storage of this material will take place indoors. The site layout map (**Drawing No. MGE0019/01-F02, Appendix 5**) shows that the majority of the site area will be covered by Buildings No. 1, 2 and 3 where all processing and the majority of storage of materials will take place. A housekeeping procedure which was submitted as part of the Waste Licence Application will be implemented at the proposed facility. This procedure outlines the steps which are to be taken to ensure that all solid waste (organic) and intermediates are stored correctly prior to shipment/disposal etc. These measures include regular inspections of site areas to ensure that all materials within the area are appropriately stored and are in sound condition and weekly checks of the external plant environment, the perimeter fencing and gates, storm water and the floor of the materials recovery facility.

Material of an organic nature will also leave the site covered. If all measures mentioned above are implemented and the housekeeping procedure is maintained, it is not anticipated that the activities taking place at the facility will attract birds or any other vermin.

As a further precaution, regular inspections will be carried out at the site to ensure that vermin (including birds) are not an issue or a nuisance at the facility. A log of all inspections shall be maintained. In the unlikely event that bird activity in the immediate vicinity of the site is increasing due to the operation of the facility, implementation of appropriate bird control measures will be discussed with the relevant authorities. Any measures used to control vermin at the site shall not cause environmental pollution.

Killarney Waste Disposal (KWD), a parent company of Kerry Central Recycling Facility Ltd., has operated as an EPA waste licenced facility for the past 10 years with no recorded incidents or complaints relating to birds as a nuisance. If all procedures as set out above are adhered to it is not anticipated that birds or any other vermin will be an issue.

## ITEM 14 - HABITATS

***Habitats: Clarify the fate of the mature tree line under the operational phase of the facility and what measures the applicant will introduce to ensure its protection/preservation. Clarify what impact emissions from the facility are likely to have on the Castlemaine Harbour SAC. Clarify what is meant by creative ecological design with regard to mitigating the loss of wildlife cover and explain what measures the applicant will introduce in this regard.***

### RESPONSE

#### Mature Treeline

The mature treeline on the western boundary of the site is not within the actual footprint of the development, and so it does not necessarily need to be felled. However, as the treeline does contain mature trees which may pose safety issues, a detailed tree survey shall be carried out prior to the commencement of works, to establish the condition of the trees. If trees pose problems in terms of stability, and ultimately safety, they will be removed.

Planting of tree-lined hedgerows and native woodland areas is proposed as part of a landscaping layout plan. An updated landscape layout plan and detailed specification were submitted to Kerry County Council on the 25<sup>th</sup> June 2009 as part of a Response to a Further Information Request (as part of the planning application for the proposed development) and these are attached in **Appendix 4**. Where possible, existing hedgerows and treelines will be retained. Where gaps occur in the treelines and hedgerows (several were noted during the site visit, and others may arise after the tree survey), these will be filled in with locally-native trees and shrubs.

#### Impact of Emissions from Facility on Castlemaine Harbour SAC

It is anticipated that if all proposed mitigation measures are put in place there will be no impact resulting from emissions of the proposed facility on Castlemaine Harbour SAC.

The proposed development site is drained by two tributaries of the Gweestin River, part of which forms the Castlemaine Harbour cSAC. The proposed site is situated approximately 300 metres to the north of the SAC. There is a potential risk of emissions from the proposed facility to surface water impacting on the designated site.

Potential sources of surface water emissions resulting from the proposed development have been identified as follows:

### 1. Construction Stage:

- Run-off of suspended solids resulting from soil removal , and
- Run-off of substances including fuels, lubricants, waste concrete and waste from construction site toilets and wash facilities.

### 2. Operation Stage:

- Effluent from waste processing and storage area and ancillary structures and facilities,
- Surface water draining from non-process area of the site, e.g. car parking, roofs, access roads, paths etc, and
- Effluent from toilet, wash facilities, canteen etc.

These emissions and any potential impacts they might have on the surrounding surface water are considered in Chapters 4 and 5 of the EIS. In order to mitigate and eliminate impacts resulting from potential emissions to surface water, a number of mitigation measures have also been set out in Chapters 4 and 5 of the EIS and are summarised below.

### 1. Construction Stage

- Works with a high risk of suspended solids contamination such as earth moving or excavation close to watercourses/drains should not be carried out between the end of September and the beginning of May.
- Retain existing vegetation where possible and physically mark clearing boundaries on the construction site.
- Cover temporary fills or stockpiles which are likely to erode into nearby watercourses with polyethylene sheeting.
- Divert runoff away from denuded areas.
- Access roads should be constructed or topped with a suitable coarse granular material/non-woven geotextile, and if possible organic topsoil should be stripped prior to access road construction.

## 2. Operational Stage:

**Process Effluent:** All drainage from process areas will be directed to an effluent tank for tankering to Tralee Wastewater Treatment Plant. This has been agreed in writing by Kerry County Council (see attachment to Item 9).

**Surface Water Run-Off:** All non-process paved and roofed areas will be drained according to sustainable drainage system (SUDS) principles. Petrol/oil interceptors will be located at any outfalls to watercourses. The surface water drainage system for the proposed development will include sufficient flow attenuation to ensure no significant changes in maximum and minimum flow rates of the streams to which the site drains. A surface water lagoon is proposed as part of this system for attenuation. This system will be properly maintained with a programme of regular cleaning, maintenance and inspection of the runoff treatment system to ensure it functions correctly.

- **Foul Water:** Effluent from on-site facilities (toilets, canteens etc) will be discharged to ground via a raised polishing filter. Effluent ortho-phosphate concentrations will not exceed 0.5mg/l. Based on maximum effluent discharge rates and the estimated 95 percentile and median flows of the eastern stream to which the discharged effluent will drain, the maximum elevation of ortho-phosphate in the receiving waters over the operational lifetime of the proposed development will be 0.00365 mg/l at 95 percentile low flows and a maximum elevation of 0.00071 mg/l at median stream flows. This constitutes a very minor input relative to other phosphorus inputs upstream of the proposed development. An updated Surface Water Assessment (Chapter 5 of the EIS) was submitted to Kerry County Council on the 25<sup>th</sup> June 2009 as part of the Response to a Further Information Request (FIR) as part of the planning application for the proposed development. The updated Assessment was issued in order to take account of the layout change proposed as part of the Response to the FIR which included alterations to the drainage layout. This updated Assessment is attached overleaf. It states that if the maximum elevation of phosphorus in the stream in the vicinity of the proposed development does not exceed the level estimated, there will be no detectable ecological effect on the cSAC to which this tributary flows.
- **General Site Operations:** In order to mitigate for potential pollution of surface waters with effluent from the material recovery facility, all waste delivery, storage and processing areas will be fully roofed against rain, bunded to contain any accidental

spillages, and drained on an impervious surface to a holding tank for tankering to a waste water treatment plant.

### Creative Ecological Design:

Creative ecological design refers to measures which will be put in place to minimise impacts on ecology and to promote biodiversity on the site. This approach involves retention of existing features of ecological value, such as the mature treeline on the western boundary, where possible, and the integration of these with the proposed planting of native woodland species as part of the landscaping process. Planting of tree-lined hedgerows and areas of native woodland will be carried out as part of the landscape and visual impact mitigation measures and the species composition used will reflect the existing assemblage of species on the site (refer to Drawing No. **LA0001 Rev F02, Appendix 4**).

Tree and shrub species recorded on the existing site are Birch (*Betula* spp.), Alder (*Alnus glutinosa*) and Holly (*Ilex aquifolium*). All of these species are included in the landscaping schedule, along with other native species such as Hazel (*Corylus avellana*), Hawthorn (*Crataegus monogyna*), Ash (*Fraxinus excelsior*), Scot's Pine (*Pinus sylvestris*), Pedunculate Oak (*Quercus robur*) and Guelder Rose (*Viburnum opulus*). There are several advantages to using native species in additional planting proposed. Native species are used as they will reflect the existing treelines, hedgerows and woodland areas in the surrounding landscape, and they will continue to attract a larger number invertebrates, birds and mammals, thereby maximising biodiversity on the site.

**Table 14.1** lists the species which are included in the woodland mix, the percentage of each species in the mix, and the wildlife benefits of each species:

**Table 14.1 Woodland Mix Proposed**

Species	% in mix	Wildlife Benefits
<b>Alder</b> <i>Alnus glutinosa</i>	20	Attracts many different species of insects, mites and Lepidoptera. The fruits are eaten by small mammals.
<b>Silver Birch</b> <i>Betula pendula</i>	10	Attracts a large number of insects and therefore is ideal for insect-eating birds. It is the best tree species for moth larvae. Catkins are a good food source for birds such as

		tits.
<b>Hazel</b> <i>Corylus avellana</i>	5	Attracts over a hundred species of insects and mites and many more species of Lepidoptera. Hazel nuts are eaten by birds and mammals such as squirrels, mice and jays.
<b>Hawthorn</b> <i>Crataegus monogyna</i>	10	Source of nectar for insects. Haws are a good food sources for birds such as thrushes and fieldfares.
<b>Ash</b> <i>Fraxinus excelsior</i>	20	Attracts a large number of insects, mites and Lepidoptera. Seeds are eaten by birds and mammals.
<b>Holly</b> <i>Ilex aquifolium</i>	5	Berries good for birds and small mammals. Caterpillars of the holly blue butterfly feed on the leaves. Holly leaf miner provides winter food for birds.
<b>Scot's Pine</b> <i>Pinus sylvestris</i>	5	Attracts a large number of insects, mites and Lepidoptera. The cones are a valuable food source for birds and mammals.
<b>Pedunculate Oak</b> <i>Quercus robur</i>	20	Attracts an enormous diversity of insects and mites (over 400 species) and many more species of Lepidoptera. Very important for insect eating birds. Acorns are eaten by a wide variety of birds and mammals.
<b>Guelder Rose</b> <i>Viburnum opulus</i>	5	Source of nectar for insects. Fruits for birds and small mammals.

## ITEM 15 - FIT AND PROPER PERSON

**Fit and Proper Person:** *Submit information to demonstrate that the applicant is likely to be in a position to meet any financial commitments or liabilities as per Section L.2 of the licence application form.*

### RESPONSE

Section L.2 of the licence application form sets out the following requirement: *“Provide information to show that the person is likely to be in a position to meet any financial commitments or liabilities that may have been or will be entered into or incurred in carrying on the activity to which the application relates or in consequence of ceasing to carry out that activity”.*

Kerry Central Recycling Facility Ltd. is under the ownership of Killarney Waste Disposal Ltd.

Killarney Waste Disposal Ltd. can confirm that they are in a position to meet any financial commitment or liabilities associated with the activity to which this application relates to or in consequence of ceasing to carry out this activity. Attachment L.2 overleaf sets out Killarney Waste Disposal Ltd's commitment as owner of Kerry Central Recycling Facility Ltd. in respect of financial provision and a letter has been issued by their accountants and registered auditors setting out their confidence in the company's financial provision.

**CURRAN MOORE & CO.**  
ACCOUNTANTS & REGISTERED AUDITORS  
TAXATION & BUSINESS CONSULTANTS  
INVESTMENT ADVISORS

M. A. WALKER, F.C.C.A.  
J.T. HOLOHAN, F.C.A., A.I.T.I.  
E. T. HARTNETT, A.C.C.A., A.I.T.I.  
TEL. 064-6632044 & 6632027  
FAX. 064-6634965  
EMAIL: info@curranmoore.ie

*Mangerton House,  
St. Anthony's Place,  
Kilbarney, Co. Kerry.*

9<sup>th</sup> June, 2009

**To Whom It May Concern:**

**Re: Killarney Waste Disposal Ltd**

**Our Ref: IH/GC**

Dear Sir,

We confirm that the Company's corporation tax liability has been processed by the Inspector of Taxes for all years up to and including the year ended 31<sup>st</sup> December 2007. Corporation tax liabilities have been paid in accordance with assessments issued by the Inspector of Taxes up to that date.

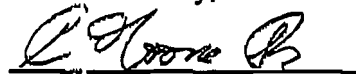
Our clients V.A.T. Return and the liabilities are settled for all period up to March/April 2009. P.A.Y.E./P.R.S.I. for all periods up to 30<sup>th</sup> April 2009 have been filed and liabilities paid.

The owners, directors and management are known by the firm for over 10 years. They have always been extremely co-operative in relation to performing the annual audit and all audits up to and including the most recent for the year ended 31/12/07 have received an unqualified audit report. The company's financial statements are prepared on a going concern basis.

We would point out that all Companies are subject to a system of Revenue Audit and in accordance with legislation the Inspector of Taxes is empowered to review back the Company's liability under all headings for six Corporation Tax years.

This information is given in confidence for your private use only, and it is given on the express understanding that neither this firm nor any of its employees is to be held responsible for any errors or omissions.

Yours faithfully,



CURRAN MOORE & CO.





# KWD RECYCLING

Aughacureen, Killarney, Co. Kerry  
| www.kwd.ie | e-mail: info@kwd.ie

KILLARNEY - COMMERCIAL 064-35666 | FAX No. 064-3866 1

KILLARNEY- DOMESTIC 064-32458 | TRALEE - 066-7128850 |

LoCall 1850 37 37 37  
CORK 028-22266

Mr. John McEntagart,  
Inspector,  
Environmental Licensing Programme,  
EPA Regional Inspectorate Dublin,  
McCumiskey House,  
Richview,  
Clonskeagh Road,  
Dublin 14.

10<sup>th</sup> June 2009

**Re: Kerry Central Recycling Facility Ltd. - Letter of Guarantee - Waste Licence Application Ref W0250-01**

Dear Mr. McEntagart,

Regarding the Financial Provisions (FP) requirements of the above Waste Licence application, please find set out below Killarney Waste Disposal (KWD) approach to ensuring adequate financial provision for environmental liabilities associated with its daughter company Kerry Central Recycling Facility Ltd.

The costs associated with decommissioning the site are estimated at IR€77,660. KWD currently has a balance of €100,000 on a Non Distributable Reserve on the Company Balance Sheet. The Non Distributable Reserve totalling €100,000 does not relate to any contingent liability. The Reserve and Liability Provisions are clearly stated in the Companies Audited Accounts.

KWD confirms that the balance of €100,000 is available and can be utilised against any potential environmental costs associated with the site closure and decommissioning.

The costs will be reviewed on an annual basis and updated in accordance with the *Wholesale Price Index, Capital Goods; Materials & Wages (as published by the Central Statistic Office (CSO) index for inflation*. A comprehensive review will be undertaken every three years to account for any new environmental aspects associated with site operations.

We hereby confirm that KWD will underwrite any financial responsibilities under future imposed conditions on granting of waste licence application Ref W0250-01 using the Financial Provisions referred to above.

Yours Sincerely,

Sean Murphy  
Managing Director

## ITEM 16 - WASTE MANAGEMENT PLAN

**Waste Management Plan: Confirm what is the existing and desired capacity for materials recovery facilities in the Limerick, Clare and Kerry Region and confirm the need for this facility with reference to the Regional Waste Plan.**

### RESPONSE

***Existing Capacity for Materials Recovery Facilities (MRF's) in the Limerick, Clare and Kerry Region.***

The existing capacity for Materials Recovery Facility (MRF's) for the Limerick, Clare and Kerry Region is set out in the Waste Management Plan (WMP) for the Limerick/Clare/Kerry Region 2006-2011 under **Section 15.7** as follows:

*"The Limerick/Clare/Kerry Region is currently served by three private Materials Recovery Facilities / large Waste Transfer Stations. It is anticipated that these facilities will be expanded in the future. At present these facilities generally recover and process dry recyclables collected from kerbside collections, bring banks and Recycling Centres for transfer on to recycling facilities, generally overseas."*

In addition, the Plan identified 9 waste transfer stations within the region which are all operated by local authorities.

This WMP was based on reporting figures for 2004. Since the adoption of the Plan in 2006, an annual report is produced each year to review the progress and changes that have occurred within the region since the publication of the Plan.

The most recent annual report published for the Limerick, Clare and Kerry Region covered the period June 2007 - June 2008. No progress was reported in terms of monitoring and reporting on the performance of MRF's/ Transfer Stations specifically.

**(a) Desired Capacity for Materials Recovery Facilities (MRF's) in the Limerick Clare and Kerry Region.**

The desired capacity for MRF's is set out in the Waste Management Plan for the Limerick/Clare/Kerry Region 2006-2011 for the region through policies, objectives and targets. The following relate directly to MRF/Waste Transfer Facilities:

**Policy**

*"The Local Authorities will support the development of additional MRF and Waste Transfer facilities where these can be shown to be consistent with the overall objectives of the Plan."*

**Objective**

*"additional MRF and/or Waste Transfer Stations will be provided in the Region".*

**Target by 2010**

*"To ensure the provision of adequate MRF/Waste Transfer Station capacity to meet the Plan targets".*

The WMP also states that *"Additional facilities may be required in the future to accommodate an expansion of kerbside collection schemes or to transfer waste to biological or thermal treatment facilities. The Local Authorities may add a number of local transfer stations to the nine already operated by them."*

The annual report for June 2007 - June 2008 sets out the progress in meeting the targets set out for waste infrastructure for the region. **Table 16.1** summarises this.

**Table 16.1 Waste Infrastructure Timetable**

Infrastructure	Public	Private	PPP	Timetable for Procurement	Progress End of June 2007	Progress End of June 2008
Bring Banks	Yes	-	-	32 additional bring banks provided throughout the Region by 2009	11 additional bring banks	No additional Bring Banks
Recycling Centres	Yes	Possible	Possible	8 additional sites by 2010 (must accept Household Hazardous waste)	2 Additional sites	1 additional recycling Centre
Green Waste Collection	Yes	Yes	Possible	All major Recycling Centres to accept green waste by 2010	Completed	N/A
Biological Treatment	Yes	Yes	Yes	2 Additional facilities for the Region by 2007	No progress	No Progress
Thermal Treatment Facility	No	Possible	Possible	Commence procurement within Plan period	No Progress	Several interested parties
Municipal Landfill	Yes	Possible	-	Additional phases as required	3 new phases completed	Adequate Capacity
Construction/Demolition Recycling	Yes	Yes	Possible	Recycling facilities provided for the Region by 2007	No Progress	1 new Recycling Facility
WEEE	Yes	Yes	-	All major Recycling Centres to accept WEEE by 2008	Completed	N/A
Trial Reuse/Repair	Yes	Possible	Possible	One centre for the Region by 2007	1 in situ	No further progress

(Source: Annual Report June 2007- June 2008, Limerick, Clare, Kerry Region)

Based on the figures set out in **Table 16.1**, the desired capacity for waste infrastructure in the Limerick/Clare/Kerry region in June 2008 was as follows:

- 21 additional bring banks by 2009,
- 5 additional recycling centres by 2010,
- All major recycling centres must accept green waste by 2010,
- Two additional biological treatment facilities are procured by 2010,
- Commence procurement of thermal treatment facilities,
- Recycling Facilities for Construction and Demolition Waste, and
- All major Recycling Centres to accept WEEE by 2008.

The proposed facility will include a public recycling centre (including WEEE collection and a bring bank), recycling for dry recyclables and construction and demolition waste, biological treatment of organic waste and green waste collection.

**Table 16.2 Implementation Timetable (Minimum Targets)**

Waste	2006	2007	2008	2009	2010
Prevention & Awareness	Awareness Initiatives on prevention and minimising household waste at least 2 per annum per local authority- <b>Completed for Year 2</b>				
Uncollected Waste Survey	1 in 2006-2007 <b>Completed</b>			Planning one in 2009	
Collected Waste	Roll out Organic Waste Collection- <b>Revised Schedules set</b>				
Materials Recovery	Monitor and report annually on performance MRFs/Transfer Stations- <b>no progress</b>				
Hazardous Waste	One Education Campaign for household per year – <b>being prepared</b> One Education Campaign for SMEs per year- <b>completed</b>				
Waste Statistics	To develop an audit programme to verify data and conduct audits- <b>verifications completed.</b>				

(Source: Annual Report June 2007- June 2008, Limerick, Clare, Kerry Region)

**(b) Need for Materials Recovery Facility in the Limerick, Clare and Kerry Region.**

The Waste Management Plan (WMP) for the Limerick/Clare/Kerry Region 2006 - 2011 acknowledges the role of the private sector in the provision of waste management infrastructure, notes the need to provide additional facilities in the region for the recovery and recycling of waste and sets objectives and targets for the recovery and recycling rates of household waste, commercial and industrial waste, construction and demolition waste and organic waste, all of which this proposed development can contribute to in a proactive manner.

**Section 8.1** of the Plan sets out the need for additional infrastructure required to treat key waste fractions in the region:

*“there remains a lack of development in treating key waste fractions such as biodegradable waste and construction and demolition waste (a waste stream that needs specific attention if the Regional target is to be achieved).”*

In the annual update June 2007- June 2008, the need for recycling centres for household waste was reiterated:

*“Recycling Centres have greatly boosted the household recycling rate since their introduction. The continued development of recycling centres is essential to meet the requirements of the Replacement Waste Management Plan. A further 6 recycling centres are being considered for the region. These may not be all be developed by the Local Authority as there is some interest by the private sector in developing these centres”.*

In conclusion to this update report, it was identified that local authorities are planning to invest time and resources in additional recycling facilities and encouraging the private sector to develop C&D recycling facilities and biological treatment facilities.

The need to increase recycling rates to 45%, in line with EU targets, has been set out in the Waste Management Plan for the region. The development of an additional recycling facility will contribute significantly in successfully meeting this target. The proposed development will play an important role in filling a gap in the C&D waste recycling market. It will also contribute to a reduction in residual waste that needs to be disposed of to landfill and will allow for residual waste to be pre-treated prior to landfilling which is the principle obligation of the EU Landfill Directive (1999/31/EC).

The WMP's policy on Material Recovery Facilities and Waste Transfer Stations requires local authorities to support the development of such facilities where these are consistent with overall objectives of the WMP and that additional facilities are to be provided where demand arises. This initiative by Kerry Central Recycling Facility Ltd. is based on the existence of such a demand. The site would be centrally located in the proposed catchment area and as such would be in line with the proximity principle endorsed by the WMP. The 2006-2007 Annual Report on the WMP recognises the issues associated with sourcing suitable sites for recycling facilities and this proposed development therefore provides a solution to setbacks identified in the implementation of the WMP.

The proposed development supports national and EU policies for the treatment of waste. On a local and regional level the proposed development meets the objectives of the Kerry County Development Plan 2009-2015 and the Waste Management Plan for the Limerick/Clare/Kerry Region 2006-2011. It will also create a significant employment opportunity in the area.

**Table 16.2** sets out how the proposed Kerry Central Recycling Facility Ltd. facility will meet the waste infrastructural requirements of the Replacement WMP based on progress in June 2008.

**Table 16.2 Need for the Proposed Facility Relative to the Waste Infrastructural Requirements of the Region**

Replacement WMP Desired Capacity - June 2008	Proposed Facility - Proposal to Meet Desired Capacity
21 additional bring banks by 2009	A public recycling centre is proposed as part of the facility.
5 additional recycling centres by 2010	Up to 60,000 tonnes per annum of dry recyclables will be recycled at the facility per annum
All major recycling centres must accept green waste by 2010	Up to 3,000 tonnes per annum of green waste will be accepted at the facility per annum.
Two additional biological treatment facilities are procured by 2010	Biological treatment of up to 30,000 tonnes per annum of segregated organic fines is proposed for the Municipal Solid Waste Accepted at the facility (drying of fines)
Recycling Facilities for Construction and Demolition Waste	Up to 12,000 tonnes per annum of C&D Waste will be accepted at the proposed facility for sorting and recovery.
All major Recycling Centres to accept WEEE by 2008	WEEE will be accepted at the public recycling centre.

The need for the facility is further demonstrated in a letter issued to RPS by the Limerick/Clare/Kerry Regional Waste Management Office in December 2008. A copy of this correspondence is attached overleaf. The issues relating to biodegradable waste, which were highlighted in this letter issued are clarified further in correspondence from RPS to the Limerick/Clare/Kerry Regional Waste Management Office issued in February 2009. This correspondence is also attached overleaf.

The Kerry County Development Plan 2009-2015, which was published in May 2009, sets out objectives relating to Waste Management (Section 8.3). These objectives which are set out below further clarify the need for the proposed facility:

### ***Collection and Disposal of Waste***

#### ***INF 8-43***

a) *Facilitate the implementation of the waste management hierarchy and the regional waste management plan including the maximizing of the diversion of waste from landfill in accordance with current national and E.U. policy.*

b) *Encourage and support the development of Biodegradable waste treatment facilities and recycling processing facilities.*

#### **INF 8-44**

*Facilitate the ongoing provision and maintenance of adequate licenced landfill capacity for the disposal of residual waste at a suitable location(s) in the county.*

#### **Recycling/Recovery**

#### **INF 8-47**

d) *Facilitate the upgrading and improved design of existing and new waste recycling/recovery facilities and the access to same to accommodate the increasing level of usage of these facilities.*

#### **Conclusion**

The existing and desired capacity for materials recovery facilities in the Limerick, Clare and Kerry Region has been set out in this response. The Waste Management Plan for this Region and associated progress reports were considered in the preparation of this response.

The Waste Management Plan stated that three privately owned MRF's were operational at that time (2004) and a further 9 waste transfer stations were being operated by local authorities in the region. The 2<sup>nd</sup> Annual Progress Report to the Waste Management Plan published by the Limerick/Clare/Kerry Regional Waste Management Office in June 2008 stated that no progress was reported in terms of monitoring and reporting on the performance of MRF's/ Transfer Stations specifically.

The desired capacity for MRF's in the region was set out in the WMP through policies, objectives and targets. The progress report, published in June 2008 updated specifically the desired capacity for waste infrastructure in the region. This included the following specific infrastructural needs:



- 21 additional bring banks by 2009,
- 5 additional recycling centres by 2010,
- All major recycling centres must accept green waste by 2010,
- Two additional biological treatment facilities are procured by 2010,
- Commence procurement of thermal treatment facilities,
- Recycling Facilities for Construction and Demolition Waste, and
- All major Recycling Centres to accept WEEE by 2008.

The need to increase recycling rates to 45%, in line with EU targets, has been set out in the Waste Management Plan for the region. The development of an additional recycling facility will contribute significantly in successfully meeting this target. The proposed development will play an important role in filling a gap in the C&D waste recycling market. It will also contribute to a reduction in residual waste that needs to be disposed of to landfill and will allow for residual waste to be pre-treated prior to landfilling which is the principle obligation of the EU Landfill Directive (1999/31/EC).

The WMP's policy on Material Recovery Facilities and Waste Transfer Stations requires local authorities to support the development of such facilities where these are consistent with overall objectives of the WMP and that additional facilities are to be provided where demand arises. This initiative by Kerry Central Recycling Facility Ltd. is based on the existence of such a demand. The site would be centrally located in the proposed catchment area and as such would be in line with the proximity principle endorsed by the WMP. The 2006-2007 Annual Report on the WMP recognises the issues associated with sourcing suitable sites for recycling facilities and this proposed development therefore provides a solution to setbacks identified in the implementation of the WMP.

The need for the proposed facility has been identified having regard to the Waste Management Plan (WMP) for the Limerick/Clare/Kerry Region 2006-2011. The Limerick/Clare/Kerry Regional Waste Management Office was consulted as part of this process and their response setting out the need for the proposed MRF is relevant (attached). The need for the development is also established by the Kerry County Development Plan 2009-2016 (Section 8.3 - Objectives INF 8-43, INF 8-44 and INF 8-47).



RPS Consulting Engineers, Lyrr Building, IDA Business & Technology Park, Mervue, Galway, Ireland  
 T +353 (0)91 534 100 F +353 (0)91 534 199 E ireland@rpsgroup.com W www.rpsgroup.com/ireland

Ms. Philippa King,  
 Regional Waste Coordinator,  
 Limerick Clare Kerry Regional Waste Management Office,  
 Lissanalta House,  
 Dooradoyle,  
 Co. Limerick

2<sup>nd</sup> February 2009

Our Ref: MGE0109LT0023GAL  
 File Ref: 311

**Re: Kerry Central Recycling Facility Ltd. – Planning Application Ref No. 2415/08**

Dear Ms. King,

We refer to our previous correspondence in relation to the above and thank you for your observations outlined in your responding correspondence dated 31<sup>st</sup> December 2008.

We acknowledge your comments regarding the quantities of organic waste outlined in the planning application and EIS and we wish to provide clarification on this issue as requested. The following table outlining the incoming and outgoing waste quantities to be processed at the proposed facility was submitted as part of the EPA Waste Licence Application:

**Table 1: Proposed Incoming and Outgoing Waste Quantities**

Incoming Waste Quantities	Outgoing Waste Quantities
50,000 tonnes mixed municipal waste	<ul style="list-style-type: none"> <li>5,000 tonnes RDF sent for energy recovery.</li> <li>10,000 dry recyclables sent for recovery.</li> <li>35,000 tonnes (residual and organic fines (dried)) sent for disposal.</li> </ul>
30,000 tonnes segregated dry recyclables	<ul style="list-style-type: none"> <li>27,000 tonnes sent for recovery (20,250 of this is paper and cardboard).</li> <li>3,000 tonnes sent for disposal.</li> </ul>
12,000 tonnes C&D waste	<ul style="list-style-type: none"> <li>10,000 tonnes sent for recovery (3,000 tonnes of this is metals)</li> <li>2,000 tonnes sent for disposal.</li> </ul>
3,000 tonnes segregated organic waste (brown bin)	<ul style="list-style-type: none"> <li>3,000 tonnes sent for recovery.</li> </ul>

In addition to the 3,000 tpa of segregated organic waste which is anticipated will be available to Kerry Central Recycling Facility Ltd. from brown bin collections, it is also estimated that some 35,000tpa of 50,000tpa of collected mixed municipal waste will be processed into organic fines. These quantities were based on current collection systems in the Region and are consistent with the targets of the National Strategy on Biodegradable Waste and the Regional Waste Management Plan.

Kerry Central Recycling Facility Ltd. anticipate that the quantity of organic waste collected in the third bin will increase with the roll out of the brown bin in the Region. This will result in an increase in the quantities of segregated organic waste to be processed at the facility with a corresponding reduction in the quantity of mixed municipal waste being accepted for MBT treatment. However it is intended that the total waste intake of 95,000 tpa at the facility applied for in the planning application will not be exceeded.

We hope this is satisfactory.

Yours sincerely,



**Willie Madden**  
**Operations Director**  
**For RPS**

wm/sg

For inspection purposes only.  
Consent of copyright owner required for any other use.



**Limerick/Clare/Kerry**

**Regional Waste Management Office**

Lissanalta House  
Dooradoyle Road, Dooradoyle, Co. Limerick

E: [rwmo@limerickcoco.ie](mailto:rwmo@limerickcoco.ie)  
W: [www.managewaste.ie](http://www.managewaste.ie)  
T: 061-496596  
F: 061-583955

31<sup>st</sup> December 2008

**RPS Consulting Engineers,  
Lyrr Buildings,  
IDA Business & Technology Park,  
Mervue,  
Galway.**

Registered	Willie
Registered No.	2
Date Recd	8 <sup>th</sup> JAN 2009
PM	MGE0109
Copies	311
Scanned	

Attention of: **Mr Willie Madden**

Re: Kerry Central Recycling Facility Ltd.-Planning application Ref No. 082415

Dear Mr Madden,

We acknowledge receipt of the information regarding the proposed facility by Kerry Central Recycling Facility Ltd., which has applied for planning to Kerry County Council and has applied for a waste licence to the Environmental Protection Agency.

The Regional Waste Management Office has examined the individual elements of the planning application, the EIS and the Waste Licence Application and our observations are outlined below.

The Replacement Waste Management Plan for the Limerick/Clare/Kerry Region 2006-2011 has as you have pointed out the following policy:-

***Section 15.7 Materials Recovery Facilities/Waste Transfer Stations  
Policy***

*The Local Authorities will support the development of additional MRF and Waste Transfer Facilities where these can be shown to be consistent with the overall objectives of the Plan.*

**Recycling**

***Section 15.3.1***

***Policy***

*Local Authorities shall promote recycling at all levels to achieve regional targets in conjunction with the EU Hierarchy.*

The plan has a major target to reach 45% recycling and an additional facility should allow for a higher rate of recycling to be achieved



**Limerick/Clare/Kerry**

**Regional Waste Management Office**

Lissanalta House  
 Dooradoyle Road, Dooradoyle, Co. Limerick

E: [nwmo@limerickcoco.ie](mailto:nwmo@limerickcoco.ie)  
 W: [www.managewaste.ie](http://www.managewaste.ie)  
 T: 061-496596  
 F: 061-583955

**Construction & Demolition Waste**

**Section 16.1**

**Policy**

*To reduce the generation of C&D Waste and ensure the reuse and recycling of this waste is maximised.*

**Objective**

*The local Authorities will encourage the development of C&D recycling facilities at suitable sites for example quarries.*

The application does not contravene the Policy and Objectives of the Replacement Waste Management Plan in relation to construction and Demolition Waste.

**Biological Treatment**

**Section 15.5.1**

**Objective**

*To facilitate the development of biological Treatment in the Region*

An overall objective of the Replacement Waste Management Plan is to divert waste from landfill so the provision of a facility to divert waste to composting a form of biological treatment does not contravene the objectives of the Replacement Waste Management Plan.

**Other Issues**

The quantities that are proposed as follows are not consistent with national statistics, the introduction of the third bin for organic waste which is a target of the National Strategy on Biodegradable Waste and is also a Target of the Regional Waste Management Plan under Organic Waste Section 15.5.

The quantities detailed in the information you supplied are as follows:-

Waste Type	Quantity in tonnes
Mixed Municipal	50,000
Organic	3,000
Dry Recyclables	30,000
Construction & Demolition	12,000

Organic Waste is 25% of the Mixed Municipal Waste Stream in accordance with the National Waste Report 2006 and with the introduction of third bin in the



**Limerick/Clare/Kerry**

**Regional Waste Management Office**

Lissanalta House

Dooradoyle Road, Dooradoyle, Co. Limerick

E: [rwmo@limerickcoco.ie](mailto:rwmo@limerickcoco.ie)

W: [www.managewaste.ie](http://www.managewaste.ie)

T: 061-496596

F: 061-583955

Limerick/Clare/Kerry Region for 50% of commercial organic waste in Jan 2009 with a 100% by Jan 2010 and 20% of Households in September 2009 and 40% by December 2010. The figure you have included of 3000 tonnes per annum of organic waste is not consistent with your total Municipal Waste Figure and hence this should be examined for purposes of clarity.

In overall terms this facility as detailed in the planning application to Kerry County Council and the waste licence application to the Environmental Protection Agency does not contravene the policies and objectives of the Regional Waste Management Plan 2006-2011 with the exception of the issues raised regarding quantities of organic waste.

This office will not be commenting on other issues related to planning or zoning as this will be dealt with by Kerry County Council or referred to An Bord Pleanala and all environmental issues will be dealt with by Environmental Protection Agency under the Waste licence Application.

Queries in relation to this submission can be addressed to Philippa King at 061 496842 or email [pking@limerickcoco.ie](mailto:pking@limerickcoco.ie).

Yours Sincerely



Philippa King

Regional Waste Co-ordinator,  
Limerick/Clare/Kerry Region.

## ARTICLE 13 COMPLIANCE

*For inspection purposes only.  
Consent of copyright owner required for any other use.*

## ITEM 1 - ODOUR DISPERSION MODELLING

An odour impact assessment which includes an odour dispersion model has been completed and is attached in **Appendix 1**.

*For inspection purposes only.  
Consent of copyright owner required for any other use.*



## ITEM 2 - CASTLEMAINE HARBOUR SAC

### Impact of Emissions from Facility on Castlemaine Harbour SAC

It is anticipated that if all proposed mitigation measures are put in place there will be negligible impact resulting from emissions of the proposed facility on Castlemaine Harbour SAC.

The proposed development site is drained by two tributaries of the Gweestin River, part of which forms the Castlemaine Harbour cSAC. The proposed site is situated approximately 300 metres to the north of the SAC. There is a potential risk of emissions from the proposed facility to surface water impacting on the designated site.

Potential sources of surface water emissions resulting from the proposed development have been identified as follows:

#### 1. Construction Stage:

- Run-off of suspended solids resulting from soil removal , and
- Run-off of substances including fuels, lubricants, waste concrete and waste from construction site toilets and wash facilities.

#### 2. Operation Stage:

- Effluent from waste processing and storage area and ancillary structures and facilities,
- Surface water draining from non-process area of the site, e.g. car parking, roofs, access roads, paths etc, and
- Effluent from toilet, wash facilities, canteen etc.

These emissions and any potential impacts they might have on the surrounding surface water are considered in Chapters 4 and 5 of the EIS. In order to mitigate and eliminate impacts resulting from potential emissions to surface water, a number of mitigation measures have also been set out in Chapters 4 and 5 of the EIS and are summarised below.

### 3. Construction Stage

- Works with a high risk of suspended solids contamination such as earth moving or excavation close to watercourses/drains should not be carried out between the end of September and the beginning of May.
- Retain existing vegetation where possible and physically mark clearing boundaries on the construction site.
- Cover temporary fills or stockpiles which are likely to erode into nearby watercourses with polyethylene sheeting.
- Divert runoff away from denuded areas.
- Access roads should be constructed or topped with a suitable coarse granular material/non-woven geotextile, and if possible organic topsoil should be stripped prior to access road construction.

### 4. Operational Stage:

**Process Effluent:** All drainage from process areas will be directed to an effluent tank for tankering to Tralee Wastewater Treatment Plant. This has been agreed in writing by Kerry County Council (see attachment to Item 9, Article 12 Compliance).

**Surface Water Run-Off:** All non-process paved and roofed areas will be drained according to sustainable drainage system (SUDS) principles. Petrol/oil interceptors will be located at any outfalls to watercourses. The surface water drainage system for the proposed development will include sufficient flow attenuation to ensure no significant changes in maximum and minimum flow rates of the streams to which the site drains. A surface water lagoon is proposed as part of this system for attenuation. This system will be properly maintained with a programme of regular cleaning, maintenance and inspection of the runoff treatment system to ensure it functions correctly.

- **Foul Water:** Effluent from on-site facilities (toilets, canteens etc) will be discharged to ground via a raised polishing filter. Effluent ortho-phosphate concentrations will not exceed 0.5mg/l. Based on maximum effluent discharge rates and the estimated 95 percentile and median flows of the eastern stream to which the discharged effluent will drain, the maximum elevation of ortho-phosphate in the receiving waters over the operational lifetime of the proposed development will be 0.00365 mg/l at 95 percentile low flows and a maximum elevation of 0.00071 mg/l at median stream flows. This constitutes a very minor input relative to other phosphorus inputs upstream of the proposed development. An updated Surface Water Assessment (Chapter 5 of the EIS)

was submitted to Kerry County Council on the 25<sup>th</sup> June 2009 as part of the Response to a Further Information Request (FIR) as part of the planning application for the proposed development. The updated Assessment was issued in order to take account of the layout change proposed as part of the Response to the FIR which included alterations to the drainage layout. This updated Assessment is attached overleaf. It states that if the maximum elevation of phosphorus in the stream in the vicinity of the proposed development does not exceed the level estimated, there will be no detectable ecological effect on the cSAC to which this tributary flows.

- **General Site Operations:** In order to mitigate for potential pollution of surface waters with effluent from the material recovery facility, all waste delivery, storage and processing areas will be fully roofed against rain, bunded to contain any accidental spillages, and drained on an impervious surface to a holding tank for tankering to a waste water treatment plant.

*For inspection purposes only.  
Consent of copyright owner required for any other use.*