

Table of Contents

1.0 Introduction.....	4
1.1 Waste Licence.....	4
1.2 Summary	4
1.3 Environmental Policy	4
1.3.1 Mr. Binman Environmental Policy	5
2.0 Site Description.....	6
2.1 Weighbridge	6
2.2 Transfer Station.....	6
2.3 Mechanical Separation.....	6
2.4 Picking Station	6
2.5 Glass Processing Plant	6
2.6 Offices	7
2.7 Security	7
2.8 Wheel Cleaning.....	7
2.9 Fuel Storage.....	7
2.10 Dust Monitoring Points.....	7
2.11 Noise Monitoring Points.....	8
2.12 Odour Control.....	8
2.13 Access and Roads.....	8
2.14 Landscaping	8
2.15 Surface Water Control	8
2.16 Mechanical Treatment Plant.....	9
2.16.1 Process Description.....	9
2.16.2 Phase One	9
2.16.3 Phase Two.....	10
2.16.4 Contingency Arrangements	11
3.0 Environmental Monitoring and Emissions Summary Report... 12	12
3.1 Dust Monitoring Results	12
3.1.1 Introduction.....	12
3.1.2 Site Description	12
3.1.3 Sampling	12
3.1.3.1 Sampling Procedure	12
3.1.4 Analysis & Results.....	12
3.1.5 Interpretation	13
3.1.6 Mitigation Measures	14
3.2 Noise Monitoring Results.....	14
3.2.1 Introduction	14
3.2.2 Sampling	14
3.2.3 N S L Results	15
3.2.4 Interpretation.....	16
3.3 Groundwater Monitoring Results	16
3.3.1 Introduction	16
3.3.2 Site Description.....	16
3.3.3 Groundwater Results	17

3.3.4	Interpretation.....	18
3.4	Surface Water Monitoring Results	19
3.4.1	Introduction	19
3.4.2	Site Description.....	19
3.4.3	Monitoring Location Points.....	19
3.4.4	Surface Water Monitoring FE1	19
3.4.4.1	Introduction.....	19
3.4.4.2	Results Tables.....	20
3.4.4.3	Interpretation.....	20
3.4.5	Surface Water Monitoring FE2.....	21
3.4.5.1	Introduction.....	21
3.4.5.2	Results Table.....	21
3.4.5.3	Interpretation.....	21
3.5	Litter	22
3.5.1	Introduction.....	22
3.5.2	Litter Control Measures in Operation for the Facility.....	22
3.6	Vermin	22
3.6.1	Vermin Control Mitigation Measure	22
3.7	Odour.....	22
3.7.1	Mitigation	23
4.0	Environmental Incidents and Complaints	23
5.0	Waste Received by and Consigned from the Facility	25
5.1	Introduction.....	25
5.2	Quantities of waste accepted/consigned.....	27
5.3	Proposal to increase the annual throughput of the facility....	27
6.0	EMP Report Summary.....	28
6.1	Review of Schedule of Objectives and Targets 2008.....	28
6.1.1	Objective 1	29
6.1.2	Objective 2	30
6.1.3	Objective 3.....	31
6.1.4	Objective 4	33
6.1.5	Objective 5.....	33
6.1.6	Objective 6.....	34
6.2	Schedule of Objective and Targets 2009.....	34
6.2.1	Objective 1 - Diversion of BMW from landfill.....	35
6.2.2	Objective 2 - Increase Recycling Rates.....	36
6.2.3	Objective 3 - Improve On-site Drainage and WWTP	37
6.2.4	Objective 4 - Assure Compliance with Waste Licence.....	38
6.3	Resource and Energy Consumption	38
6.3.1	Water Consumption	38

6.3.2Electricity Consumption	39
6.3.3Fuel Consumption.....	39
7.0Site Management.....	40
7.1 Formal Management Structure	40
7.1.2 Site Personnel with Managerial Responsibility	41
8.0 Financial Provision	42
8.1 Review of ELRA and RMP	42
8.2 Current ELRA.....	42
8.3 Decommissioning /Closure of the site.....	47
8.4 Emergency Event.....	48
8.5 Summary.....	49

Appendix 1

Copy of Electronic AER Returns Worksheet

1.0 INTRODUCTION

The purpose of the Annual Environmental Report (AER) is to summarise the interaction of the licensed facility with the local environment. It is also a strategic document, by way of its analysis of how the facility achieved the objectives and targets.

This document reports on the operation of Mr. Binman Ltd transfer station and recycling centre from **1st January 2008 to 31st December 2008**. The facility is located at Luddenmore, Grange, Kilmallock, Co. Limerick.

1.1 WASTE LICENCE

Mr. Binman Ltd. has conducted this Annual Environmental Report (AER) as per the condition 11.6 and includes the information specified in Schedule G of Waste Licence W0061-2.

1.2 SUMMARY

This document contains the following elements as required by Agency's Guidance on Annual Environmental Reports to the Agency.

- Environmental Policy
- Site Description
- Site Development Works
- Environmental Monitoring and Emissions Summary Report
- Environmental Incidents and Complaints
- Waste Received by and Consigned from the Facility
- Environmental Management Programme Report

1.3 ENVIRONMENTAL POLICY

Our Environmental Policy clearly communicates Mr. Binman Ltd.'s mission and core values with respect to the environment. It also acts as a company statement regarding our commitments to control and improve environmental performance with respect to significant environmental aspects of the organisation activities.

This commitment to control and improve our operations with respect to the environment has resulted in our investment in a range of infrastructure dedicated to enhancing our environmental performance, which will be demonstrated within this AER.

1.3.1 Mr. Binman Ltd. Environmental Policy

The following statement is Mr. Binman Ltd.'s Environmental Policy:

Mr Binman Ltd. is committed to maintaining the high standard of environmental performance it always has enjoyed. Our environmental performance is underpinned by a set of principles. We believe in conducting business in the right way. We owe our success to our customers, employees and the community in which we operate. We recognise that we have responsibilities to all of them. It is in this respect that Mr Binman Ltd. shall endeavour to work towards the following objectives:

Promote environmentally sound waste management solutions by promoting recycling and the polluter-pays-principle. Our Pay-by -Weight system is both equitable to our customers and environmentally responsible as it encourages both recycling and waste minimisation.

Enhance the waste management practices within the South-West Region. Mr. Binman Ltd.'s business plays an important role in assisting the local authorities to meet their waste management obligations under law and also the targets set out in the Regional Waste Management Plan.

Foster a wider understanding of environmental issues within the Community by sustaining a number of Community Awareness Programmes. These programmes target the younger generation by focusing its efforts on schools and universities through our Educational Program.

Manage our operations with diligence and awareness as to prevent any adverse environmental effects arising at the facility.

Provide self-monitoring to ensure compliance with relevant environmental legislation, our Environmental Policy and the requirements of the EPA.

Utilise the precautionary principle as a valuable tool in decision-making as a preventative measure towards pollution and nuisance control.

Identify and mitigate any environmental problem arising through the employment of strict regime of regular site inspections and audits. This is an important problem-solving tool as any nuisances detected are at early stage are immediately resolved.

Foster an enhanced communication system incorporating dialogue, and discussion with all stakeholders regarding our environmental performance and our environmental objectives and targets to create transparency and accountability.

To continually improve environmental performance through technological innovation accordingly our board of director's travels extensively throughout Europe and North America to source the most environmentally sound and technically advanced waste recovery system to ensure that the processes we employ are the most environmentally sound available."

2.0 SITE DESCRIPTION

The Mr. Binman Ltd. facility is mainly comprised of a Waste Transfer Station and Recycling Centre. The infrastructure on-site is all directly or indirectly related to these activities. An inventory of the infrastructure will be given along with the engineering details of each item.

2.1 WEIGHBRIDGE

The weighbridge operates by means of an over-ground Avery scale. All vehicles carrying refuse in to the site are weighed before and after tipping at the transfer station. The weighbridge can weigh vehicles up to 60 tonnes. The Legal Metrology checks the weighbridge for accuracy once a year. Details of each load weighed are catalogued as per section 10.2 of our EPA Waste Licence, number 61-2 using 'BridgeMont' our new up-dated customised computerised weigh recording system which has been installed at the weighbridge.

2.2 TRANSFER STATION

Waste which enters the transfer shed is tipped and goes through a pre-sort process to remove wood, steel or other bulky items which may interfere with the mechanical separation plant.

2.3 MECHANICAL SEPARATION

In the normal days events the transfer of MSW is tipped onto a walking floor and transferred via a conveyor onto picking station 2. See section 2.16.

2.4 PICKING STATION

The picking line is located in the transfer shed. It consists of a conveyor belt with numerous chutes positioned adjacent to it. The recyclables are stored in bunkers until they are full; the contents are automatically conveyed down to the baling station to be baled.

2.5 GLASS PROCESSING PLANT

The main components of the glass processing plant are as follows: hopper, manual removal of colour contamination, magnet for removal of loose materials, crusher, vibrating screen for removal of plastic, corks and rings, vertical conveyor, ceramic remover, cyclone, eddy current separator for removal of aluminium packaging, outfeed belt, and storage bays.

2.6 OFFICES

There is an office on site in which the weighbridge readings are recorded. The administrative offices are located adjacent to the site. A block of offices and canteen located on site adjacent to the weighbridge. All records relating to the environmental management of the site are stored in the Environmental Office (located in offices adjacent to the weighbridge).

2.7 SECURITY

The front of the site is fenced with a high security fencing. The site is monitored 24 hours a day 7 days a week using security cameras placed strategically around the site and entrances. Security lighting has been suitably positioned with 250-watt LPS on 'dusk 'til dawn' setting which acts as a deterrent to criminal activity.

2.8 WHEEL CLEANING

A vehicle washing area is located adjacent to the waste water treatment plant. All vehicle washing is carried out at this location. The vehicle washing area consists of a concreted area that slopes to a central slatted area where the washings drain. The slats are removable and can be removed when necessary to remove any build up of silt.

2.9 FUEL STORAGE

Fuel is stored in a bunded fuel tank that is located in a bunded concrete area. Access to the fuel tank can only be achieved through the use of a key and a code. The bunded tank comprises of a separate internal rectangular storage tank, suitably braced and raised above the bund floor by mild steel sections. The outer bund tank is manufactured in a rectangular configuration, suitably strengthened and large enough to incorporate 110% of the inner tank capacity. All bunds are manufactured with pressed sidewalls to prevent formation of water traps, and are supported from ground level using heavy-duty steel sections welded to the underside.

A convex removable roof achieves total enclosure and the enclosed pipework and valves are accessible through a lockable hatch in the roof.

2.10 DUST MONITORING POINTS

There are three dust-monitoring points located on site. The monitoring points are fenced to protect them from livestock where necessary and are labelled C, E2 and G. Dust monitoring is carried out by BHP Laboratories as per licence requirements. The dust monitoring is currently being analysed using the BergerHoff method.

2.11 NOISE MONITORING POINTS

Glenside Environmental assesses noise monitoring for the site. Noise measurements are recorded at the three nearest residences bordering the site; these include the Ryan residence, the Power residence and the Hennessy residence.

2.12 ODOUR CONTROL

An odour control system operates in the yard and around part of the site perimeter. This is only a precautionary measure as the manner in which we deal with waste and recyclables ensures that odour problem do not arise in the first place. The on-site odour control system which utilises several rotary atomisers which produce millions of microscopic droplets of very dilute 'Aironaut' solution. This 'Aironaut' solution consists of a combination of essential oils, odour neutralising reagent and anti-bacterial agent. The partnership of the 'Rotary Atomisers' and the 'AiroNaut' solution forms an extremely effective and pleasant way to neutralise odours, if they should occur. The perimeter odour control system works by pumping the liquid intermittently through nozzles which emit a fine spray this system has been strategically positioned along the South-Eastern border of the site.

2.13 ACCESS AND ROADS

The site is located adjacent to a third class road. This road joins the Kilmallock road at approximately one kilometre west of the site. The Kilmallock road is classed as a regional road. It is by the Kilmallock road that the refuse vehicles access Limerick city and its environs.

2.14 LANDSCAPING

An on-going program of suitable landscaping is been carried out around the site. Semi-mature trees have been planted to screen buildings and abate noise and dust emissions.

2.15 SURFACE WATER CONTROL

The surface of the yard and truck parking area is concreted. All surface water is drained from this concreted area to the percolation area via a new Class 1 oil interceptor/silt trap. Clean roof run-off is now directed to soak pits away from the oil interceptor and wwtp. The main entrance to the yard is concreted and surface water from this area is drained to soak pits at the side of the entrance.

2.16 MECHANICAL TREATMENT PLANT

2.16.1 PROCESS DESCRIPTION

MATERIALS RECOVERY FACILITY & MECHANICAL SEPARATION PLANT

Mechanical Separation is the first stage of Mechanical Biological Treatment. This mechanical separation process has been incorporated with our Materials Recovery Facility (MRF). Each phase handling one of the incoming waste streams. Phase 1 is the MRF and involves the manual separation of the commingled dry recyclables stream. Phase 2 entails the mechanical recovery of materials from residual municipal waste stream.

2.16.2 Phase One – Separation of Commingled Dry Recyclables Stream

This stage utilises a combination of mechanical and manual separation to recover high quality recyclable material from the source separated recyclable material.

Recycle bags from recycling and dual compartment trucks are tipped and conveyed onto a walking floor via a loading shovel. The loose dry recyclables are conveyed from the bag opener onto a picking station (picking station 1). Additionally, Opti-bags from mixed collection that are recovered at picking station 2 fall down a chute onto the walking floor and loose dry recyclables from picking station 2 by-pass the bag opener and are dropped down a separate chute onto the conveyor belt to picking station 1.

The picking station (picking station 1) is overhanging the floor at a height of 4.5 m. Storage bunkers for cardboard, newspaper/magazines, mixed papers, mixed plastics, plastic bottles, beverage cartons and metal cans are suspended from this picking station. Once these bunkers are full to capacity they are conveyed to balers where they are baled. They are then stored and transported to reprocessing facilities for further recycling.

During 2008 it was decided to transfer all dry recyclables to our dedicated materials recycling facility in Carrick-on-Suir where the recyclables are separated more efficiently to produce better quality products using best available separation technologies.

Glass is colour separated into the three different colours, blue/green, clear and brown. The glass is sent to the on-site glass processing plant for pre-processing. Glass cullet is conveyed to covered storage bays.

2.16.3 Phase Two - Separation of Residual Municipal Waste

1. Pre-Sort of Residual Waste

Refuse from the trucks are tipped onto a walking floor and onto a picking station. Any oversize and/or hazardous materials are also removed via a small picking station and stored in a quarantine area and disposed of in the appropriate manner.

The residual MSW passes through a 30m long trommel via a bag opener. The first section of the trommel is fitted with knives which ensure all waste is removed from bin bags to enable treatment. It is important that all bags are opened before they enter the trommel as this ensures maximum recovery of materials. The plant has two trommels a 20m long 60mm screen trommel and a 10m long 180mm screen trommel.

2. Organic Waste Fines (<60mm)

The first trommel consists of series of 60mm screens. Any waste <60mm is considered fine waste (organic component). This material passes under magnets, eddy current separators this further mechanical treatment removes ferrous and non-ferrous from the feedstock. This material is then conveyed into a covered storage area prior to transportation off-site for biological treatment at a composting facility, where available.

The remaining waste stream i.e. materials above 60mm in diameter enters the 180mm section of the trommel. The waste stream is split into the following: materials > 180mm in diameter (oversize) and materials < 180mm in diameter (undersize).

3. Undersize Fraction (<180mm)

The undersize material (<180mm) runs through a series separation equipment.

First, the waste passes under magnets which remove ferrous metals such as steel cans. The magnets are positioned above a drop in the conveyor belt to minimise contamination of overlying materials. Magnets precede the Eddy Current Separators which remove non-ferrous metals such as aluminium cans in order to minimise contamination by ferrous metals.

The remaining waste is conveyed to compactors which compact the waste and then automatically loads the waste onto artic ejector trailers to send to landfill.

4. Oversize Fraction >180mm

The oversize material (>180mm) is passed under an air knife and an overband magnet via a series of conveyor belts.

Air knives suction off paper and lightweight plastics which can be utilised as a high calorific fuel termed as Refuse Derived Fuel (RDF). This material is transported via conveyor to a specialised baler. The RDF is double wire baled and wrapped in plastic sheeting to aid storage and transportation.

The remaining material is conveyed to compactors which load the waste onto artic ejector trailers which are used to transport the waste to landfill.

2.16.4 Contingency Arrangements

In the event that a conveyor or the trommel breakdown a Hydraulic Bridge is lowered which by-passes the Mechanical Treatment Plant until the plant is operational.

To ensure that breakdowns are minimised there is a fully trained maintenance crew on-site and a full set of replacement parts for all components of the plant are stored on-site.

3.0 ENVIRONMENTAL MONITORING AND EMISSIONS SUMMARY REPORT

3.1 DUST MONITORING RESULTS

3.1.1 Introduction

BHP Laboratory, Thomondgate, Limerick conducts a dust monitoring programme on behalf of Mr. Binman Ltd. The period of sampling is from 1st January 2008 to 31st December 2008.

3.1.2 Site Description

The Mr. Binman Ltd. facility is elevated and is located on the southern slopes of a hill such that it is exposed to prevailing winds from the south east.

3.1.3 Sampling

The gauges were all placed at ground level. The locations of the sampling sites are described in the table.

Table 3.1 Dust Monitoring Location Points

Dust Monitor	Location
C	Near timber area
E2	Boundary
G	Boundary

3.1.3.1 Sampling Procedure

All sampling and analysis was conducted with German Standard VDI 2119 using Bergerhoff dust deposition gauges. This is a standard method specified to be used in EPA licence W0061-02.

Dust monitoring was carried out as per Schedule D of EPA Licence W0061-02. The dust limit for Mr Binman Ltd. as set out in EPA Licence W0061-02 is 350mg/m²/day.

3.1.4 Analysis & Results

The results of analysis for the year 2008 are presented in Table 3.1 and Figure 3.1 Below. The results of the analysis have been compared to the dust deposition limit set out in Table C.2. in EPA Waste License W0061-02.

Table 3.2 Results from Analysis 2008

Period	C	E2	G
Jan-08	272	143.3	170.6
Feb-08	1651	184.4	73.9
Mar-08	889	202.8	221.7
Apr-08	1281	250	61.7
May-08	1369	376.2	117.8
Jun-08	461	60	63.9

Jul-08	891	285.6	401.7
Nov-08	157.8	53.9	228.9
Dec-08	265.5	131.7	69.4

Note 1: Dust Deposition Limit set out in Table C.2 in EPA Waste License 61-2.

3.1.5 Interpretation

On examination of the Location Dust Monitoring Points it was recommended by BHP to relocate Dust Monitoring Point C as it is located at a waste processing area which contravenes German Standard VDI 2119 Part 2 as the monitoring does not provide a representative assessment of the potential dust emissions from the site as a whole.

“care shall be taken that the site is not affected by emission from immediately adjacent sources(for example, trees, building sites) which could limit the representative nature of the measurements required by the measurement task.”

Mr. Binman Ltd. has made representations to the Agency requesting the relocation of dust monitoring point C on the basis of recommendations by BHP. In July 2008 a Licence review Application was submitted to the EPA which proposed a new site boundary and dust monitoring point C will be relocated to this new boundary to ensure there will be no impact offsite as a result of activities on-site.

Possible causes of exceedances for the other emission points during July and May are likely to be related to agricultural activities such as hedge cutting and lime spreading in the adjacent fields and typical seasonal factors when dry conditions may have contributed to dust from areas such as the public road and gravel carpark.

Planning permission was received for a new hardstanding carpark which will replace the gravel carpark and will result in a reduction in dust emissions. Development of the new car park is subject to the Licence Review also as the location is outside the existing site boundary.

Other measures are proposed in the Licence Review Application to ensure compliance with dust emission limit values.

There were no complaints in relation to dust from the site in 2008.

3.1.6 Mitigation Measures

Table 3.3: Summary of Dust sources and mitigation measures.

Dust Sources	Mitigation Measures
Timber shredding Area	<ul style="list-style-type: none"> • Move Monitoring Point C which is not representative of potential dust emissions from the site as a whole • Move/cover timber shredding area
Traffic Movement	<ul style="list-style-type: none"> • New entrance roadway and carpark will eliminate dust from existing gravel carpark. • Continue frequent on-site truck washing to minimise generation of dust from vehicles.

3.2 Noise Monitoring Results 2008

3.2.1 INTRODUCTION

Glenside Environmental was commissioned by Mr. Binman Ltd. to carry out an environmental noise survey at its plant in Ballyneety, Co. Limerick, in order to determine the influence, if any, it has on the surrounding environment and to measure compliance with Waste Licence requirements (Reg. No. W0061-02).

3.2.2 SAMPLING

3.2.2.1 Sampling Locations

Monitoring was performed at the same four noise sensitive locations where previous monitoring had occurred.

Noise sensitive locations:

1. Power's Residence (Directly opposite the site entrance).
2. Hennessy's Residence (Located to the west of the site entrance).
3. Ryan's Residence (Located to the east of the site entrance).
4. Maguire's Residence (Located to the south west of the site, approximately a half mile distant).

3.2.2.2 Procedure

Measurements were taken using the following equipment:

- Precision integrating sound level meter:
Bruel & Kjaer, Type 2260, Serial No. 2217549
- Microphone:
Bruel & Kjaer, Type 4189, Serial No. 2174750
 - Acoustical Calibrator:
Bruel & Kjaer, Type 4231, Serial No. 1883708

Measurements were taken, to establish, as close as possible, the impact of noise produced by Mr. Binman Ltd. is having on the immediate environment.

A 1/3 octave band analysis was carried out at each location to determine if any tonal component was emanating from the plant. Measurement parameters reported include L_{Aeq} , L_{A10} and L_{A90} . Measurement duration was 30-minutes at each noise sensitive location in accordance with licence requirements.

Measurements were taken in accordance with ISO 1996 “Determination and Measurement of Environmental Noise” and EPA Guidance Notes for “Noise in relation to scheduled activities”.

3.2.3 Noise Sensitive Location Results

Table 3.4

Monitoring for June 4 th & 5 th 2008			
Daytime	L Aeq, 30 min dB(A)	L A90, 30 min dB(A)	L A10, 30 mins dB(A)
NSL-1	67.4	46.2	67.8
NSL-2	60,6	42,4	62.6
NSL-3	57.6	43.8	53,8
NSL-4	64.2	42.6	59.6

Night time			
Night time	L Aeq, 30 min dB(A)	L A90, 30 min dB(A)	L A10, 30 mins dB(A)
NSL-1	63.1	48.8	62.2
NSL-2	67.0	42.0	67.8
NSL-3	53.2	43.2	59.4
NSL-4	63.1	45.6	61.6

Table 3.5

Monitoring for Nov. 13 th and 14 th 2008			
Daytime	L Aeq, 30 min dB(A)	L A90, 30 min dB(A)	L A10, 30 mins dB(A)
NSL-1	68.1	41.2	63.4

NSL-2	69.6	43.2	69.2
NSL-3	62.3	38.4	52.8
NSL-4	66.4	44.8	64.2
Night time			
	L Aeq, 30 min dB(A)	L A90, 30 min dB(A)	L A10, 30 mins dB(A)
NSL-1	64.9	44.6	60.6
NSL-2	71.0	44.1	58.8
NSL-3	69.0	45.0	58.8
NSL-4	64.3	44.6	56.6

3.2.4 Interpretation

The EPA license limit value for L_{Aeq} (30 minutes) of 55 dB(A) for daytime hours was exceeded at all of the noise sensitive locations due primarily to passing traffic. It was noted however that the L_{90} parameter did not exceed the 55 dB(A) limit. Glenside Environmental report that "this would indicate that the specific noise from the facility was within the daytime limits". At all locations passing traffic was the main contributor to elevated noise levels.

The continuous operation of the plant and association activities indicates that its noise contribution is better characterised by the L_{90} value than that of the L_{Aeq} . The low L_{A90} values however indicate the ambient noise climates at sensitive receptors are not adversely affected by any single, continuous noise source. This is supported with reference to observations on the audibility of the site noise during the course of each monitoring interval.

In addition it is notable that all the night-time $L_{Aeq 30}$ measurements at the noise sensitive locations were above the limit. These measurements were taken when Mr. Binman was closed confirming the noise levels are not associated with Mr. Binman Operations.

3.3 GROUNDWATER MONITORING RESULTS 2008

3.3.1 Introduction

Tobin Consulting Engineers were requested by Mr. Binman Ltd. to carryout all works necessary to conduct the biannual groundwater monitoring. Monitoring of the groundwater wells was conducted in June and November 2008.

As specified in the licence GW1 monitoring borehole is located up-gradient of the Mr. Binman Ltd. facility and GW2 monitoring borehole is located down-gradient of the Mr. Binman Facility.

3.3.2 Site Description

The Mr. Binman site comprises a fully EPA licensed waste recovery facility, located in Luddenmore, Grange, County Limerick. The site is located on the southern slopes of a hill forming part of the Limerick Volcanics, which sweeps down to a flat valley floor. Groundwater flows beneath the site in a generally South to South-East

direction, as outlined in a hydrogeological report submitted to the Agency in February of 2004.

3.3.3 Groundwater Monitoring Results

The results of this analysis for the year 2008 are presented in Table 3.6 below, with the results from analysis carried out by the EPA presented in Table 3.7.

Table 3.6: Groundwater Monitoring conducted by Tobin Consulting Engineers on behalf of Mr. Binman.

25/06/2008		GW1	GW2
PH	p H units	7.29	6.99
Electrical Conductivity	uS/cm	670	738
Total Organic Carbon	mg/l	5.9	2.9
Ammoniacal nitrogen	mg/l	<0.1	<0.1
Total Phosphorus	mg/l	1.65	0.13
Total Nitrogen	mg/l	7.9	6.5

19/11/2008		GW1	GW2
PH	p H units	7.29	6.99
Electrical Conductivity	uS/cm	455	768
Total Organic Carbon	mg/l	<0.4	<0.4
Ammoniacal nitrogen	mg/l	<0.12	<0.12
Total Phosphorus	mg/l	<.10	0.11
Total Nitrogen	mg/l	4.5	2.4

Table 3.7: EPA Groundwater Monitoring Results

19/02/2008		GW1	GW2
PH	p H units	7.42	7.23
Electrical Conductivity	uS/cm	606	791
Total Organic Carbon	mg/l	5.56	5.15
Ammoniacal nitrogen	mg/l	0.22	<0.02
Total Phosphorus	mg/l	3.02	<0.2
Total Nitrogen	mg/l	4.82	2.58

13/05/2008			
PH	p H units	7.3	7.05
Electrical Conductivity	uS/cm	601	820
Total Organic Carbon	mg/l	5.56	5.12
Ammoniacal nitrogen	mg/l	.14	.14
Total Phosphorus	mg/l	<.2	<.2
Total Nitrogen	mg/l	3.37	1.59

17/09/2008		GW1	GW2
PH	p H units	7.32	7.06
Electrical Conductivity	uS/cm	525	839

Total Organic Carbon	mg/l	-	-
Ammoniacal nitrogen	mg/l	<.02	0.13
Total Phosphorus	mg/l	0.11	<.20
Total Nitrogen	mg/l	3.31	1.56

02/12/2008		GW1	GW2
PH	p H units	7.3	6.97
Electrical Conductivity	uS/cm	532	854
Total Organic Carbon	mg/l	-	-
Ammoniacal nitrogen	mg/l	<.02	<.02
Total Phosphorus	mg/l	<.20	<.20
Total Nitrogen	mg/l	3.47	1.96

3.3.4 Interpretation

Tobin Consultants interpreted both the data generated by the EPA and the data generated from the monitoring conducted by TES. The following conclusions were drawn from the data:

June Monitoring Report:

"All of the reported values for the Waste License No. 61-2 bi-annual monitoring programme are within the Parametric Values set out in the relevant Drinking Water Standards (S.I. 439 of 2000) and below the relevant Interim Guideline Values (EPA, 2003).

The June 2008 sample at GW1 may not have been fully representative of groundwater in the aquifer at that location. It is possible that some cross-contamination of the sample from dirt and contaminants adsorbed on to the tubing, during its time at the surface in the adjacent ditch, may have occurred. As a result, any issues identified in GW1 on the basis of the June 2008 sample will need to be re-evaluated in the light of the November 2008 and June 2009 samples, once these have been collected, analysed and assessed.

Further investigation will be required to determine if the measured EC in the area is representative of the natural background level and if the measured total nitrogen contains a significant nitrate component.

The groundwater quality data from the November 2007 sampling event are consistent with the interpretation of the June 2008 data."

November Monitoring Report:

"All of the reported values for the Waste License No. 61-2 November 2008 bi-annual monitoring programme are below the relevant Interim Guideline Values (EPA, 2003) and also within the Parametric Values set out in the relevant Drinking Water Standards (S.I. 439 of 2000).

Review of the available data for GW1 and GW2 indicates that intermittent agricultural pollution of groundwater may occur both upgradient and downgradient of the site from sources outside the Mr. Binman site.

Assessment of trends in the EC data indicates that there may be a further source of ionic inputs between the two monitoring locations. These trends should be confirmed through further monitoring.

Further investigation should be carried out to characterize the signature of external agricultural pollution in the monitoring record and to assess the existence of the possible source of ionic inputs between GW1 and GW2."

The TOC data generated in 2008 shows a general decrease in TOC in the down gradient well when compared with the up gradient well and it is also noted that the TOC concentrations decreased in both wells towards the end of the year when compared with the start of the year.

3.4 SURFACE WATER MONITORING RESULTS 2008

3.4.1 Introduction

BHP Laboratories, Thomondgate, Limerick carryout analysis on surface water samples in accordance with Table C.3 of Schedule C of Waste Licence W0061-02.

3.4.2 Site Description

The Mr. Binman site is located on the southern slopes of a hill. The yard has a mild southward gradient with a much steeper gradient from the yard down to the road. The Wastewater Treatment Plant is located on the lowest point of the site.

3.4.3 Monitoring Location Points

Table 3.8: Surface water Monitoring Locations

Monitoring Location	Code
<i>The emission point from the outlet of the waste water treatment plant prior to entry to the percolation area</i>	FE1
<i>The emission point from the Class 1 interceptor prior to discharge to the percolation area</i>	FE2

3.4.4 Surface Water Monitoring FE1

3.4.4.1 Introduction

There were no discharges to emission point FE1 in 2008.

It was agreed with the Agency in 2007 that all wwtp effluent would be removed from site until compliant effluent discharges from the wwtp were achieved consistently.

A programme of additional control measures were proposed to the EPA in order to achieve compliance and significant progress was made in 2008 towards achieving compliance. Details of these controls are provided below.

In 2008, 318 loads or 6,156 cubic metres of wastewater was sent to Castletroy municipal wwtp in 2008.

3.4.4.2 Results Tables

Table 3.10: Emission Limit Values for FE1

FE1 Parameter	Emission Limit Value
PH	6 to 9
BOD	20mg/l
Suspended solids	30mg/l
Oils, fats and grease	Not Visible

Table 3.11: Mr. Binman Monitoring of wastewater effluent*

BHP Monitoring	PH	BOD mg/l	Suspended solids mg/l	Oils, fats and grease mg/l
31/03/2008	6.43	1593	742	-
01/04/2008	6.42	1537	196	33.3
01/05/2008	6.46	2209	830	12
01/09/2008	-	116	-	not visible
18/09/2008	-	70	-	not visible
24/09/2008	6.70	18	66	not visible
03/12/2008	7.04	11	15	not visible
10/12/2008	7.24	18	21	not visible
17/12/2008	6.43	6	90	not visible

* Note that all wastewater discharges were collected and sent off-site for further treatment. There were no discharges to emission point FE1.

3.4.4.3 Interpretation

Projects were put in place to provide better WWTP control during 2006, 2007 and 2008.

In 2007, a wastewater storage tank was modified and a pump chamber installed to ensure all waste water effluent could be removed from site for off-site treatment.

Additional modifications were completed to the WWTP in 2007 including addition of an aeration system in the storage tanks to provide better control and the organic fines storage area and the glass bays were all covered in order to minimise leachate from these areas and to reduce the impact on the WWTP.

In 2008, the optibag storage area and the cardboard storage areas were covered to minimise any leachate that may arise from these areas. A roof water diversion project was completed in order to minimise uncontaminated roofwater discharging to

the WWTP/oil interceptor and preventing additional hydraulic loading, thereby providing better control. Diversion of uncontaminated run-off from other areas to reduce suspended solids entering the plant was also completed.

A full-time environmental analyst/wwtp operator was employed and a laboratory was established to ensure regular monitoring and maintenance of the WWTP was conducted in order to achieve better WWTP control and ELV compliance. As can be seen from the data above these control measures have ensured the wwtp has significantly improved.

A final modification will be completed in 2009 which is expected to ensure suspended solids compliance can be achieved consistently.

3.4.5 Surface Water Monitoring FE2

3.4.5.1 Introduction

In September, 2008 a new oil interceptor and certified percolation area was installed and separation of drainage systems was completed to ensure discharges to emission point FE2 were not of environmental significance. A new manhole was constructed at the discharge point to facilitate sampling. The results of sampling and analysis of subsequent discharges are summarised in the Table 3.13 below.

3.4.5.2 Results Table

Table 3.13

Parameter	Units	30/09/2008	11/11/08
COD	mg/l	40	47
Suspended solids	mg/l	20	29.3
Mineral Oils	mg/l	<0.01	<0.01
Ammoniacal Nitrogen	mg/l	0.01	0.17

3.4.5.3 Interpretation

All values were in compliance with emission limit values confirming the upgraded system is operating efficiently and the discharges are not environmentally significant.

3.5 LITTER

3.5.1 Introduction

Litter is monitored for the yard and the perimeter of the facility on a weekly basis and recorded and filed as required by **Condition 8.9.1** of the waste licence. It is the responsibility of the Environmental Officer to record the level of litter control and to take action if necessary. It is the responsibility of the Yard Manager to ensure that litter control measures are enforced on a daily basis. A litter report is compiled on a weekly basis and action is taken based on recommendations outlined in the report.

3.5.2 Litter Control Measures in Operation for the Facility:

- All waste carrying vehicles entering and leaving the yard must be fully enclosed or netted to ensure that rubbish does not fall from them.
- The yard is swept on a regular basis during the day using a dedicated road sweeper truck and manual means.
- The transfer building and all processing areas is cleaned of all waste by the end of each working day.
- The plant and buildings are enclosed to minimise the possibility of litter arising.
- The yard, surrounding area and approach roads are checked for litter on a daily basis and any litter that arises at the facility is removed.

3.6 VERMIN

3.6.1 Vermin Control Mitigation Measures

As per **Condition 8.9.1** evidence of the presence of vermin such as rats, mice, birds, flies and wild animals is recorded for the yard and the perimeter of the facility on a weekly basis. Action is taken based on recommendations outlined in the report. It is the responsibility of the Environmental Officer to maintain these records and to organise prevention of vermin problems if necessary.

Vermin traps are set up in designated areas by an external pest control contractor around the facility. The number of traps set in a certain area depends on the degree of activity in that area. Extra traps may be placed in particular areas depending on activity there.

The vermin traps are inspected regularly by the pest control contractor and reports are provided after each inspection.

3.7 ODOUR

As per **Condition 8.9.1** odour is monitored on a weekly basis and results are recorded in the Nuisance. Monitoring is carried out manually and records of odour are taken for the yard and the perimeter of the facility.

3.7.1 Mitigation Measures

- Waste is collected from households weekly which ensures the waste is "fresh" and does not cause an odour nuisance at the facility.
- A "clean as you go" policy operates at the facility during the day and all areas are thoroughly cleaned at the end of each day.
- No waste is stored on site long-term.
- Wastes with a high odour risk are not accepted onsite such as sludge.
- An odour abatement system is installed at designated areas around the facility as a precautionary measure

4.0 ENVIRONMENTAL INCIDENTS AND COMPLAINTS SUMMARY

Table 4.1: Environmental Incidents and Complaints 2008.

Date & Time of Complaint	Name & Address	Summary of Complaint	Actions Taken
01/09/2008	Mr. Seamus O'Neill, The High Road Friarstown, Grange, Co. Limerick	Mr. O'Neill registered a complaint that material was accepted at the Mr. Binman waste transfer site after permitted times stated on the EPA licence.	<p>At the time of the complaint the facility was not operational and the gates were closed, but it was confirmed that two trucks did return to the yard at the approximate time.</p> <p>Both drivers had to report to security before parking their trucks and no material was accepted until Monday.</p> <p>Following the incident, Mr Binman has revised its complaints procedure and we have trained relevant personal to ensure details of any complaint received are documented.</p> <p>Mr Binman responded directly to Mr O'Neill and a copy of the response was forwarded to the EPA.</p>

4.1 Corrective Action

The Waste Licence does not permit opening on Sundays or Bank Holidays. As part of the Licence Review in 2008, a request will be made to modify the condition to include a statement "unless otherwise agreed with the Agency". This will permit us to request opening in exceptional circumstances.

5.0 WASTE RECEIVED BY AND CONSIGNED FROM THE FACILITY

5.1 Introduction

Only non-hazardous wastes are collected and/or accepted by Mr. Binman Ltd. at our Waste transfer Station. The following are the European Waste Catalogue (EWC) Codes of the waste types accepted by Mr. Binman Ltd.

Table 5.1: EWC Codes of Waste Types accepted by Mr. Binman Ltd

Code	Description
02 01 03	Plant-tissue waste.
02 01 04	Waste plastics (except packaging)
02 01 10	Waste metal.
02 06 01	Materials unsuitable for consumption or processing.
03 01 01	Waste bark and cork.
03 01 05	Sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04.
03 03 08	Waste from sorting of paper and cardboard destined for recycling.
10 11 03	waste glass-based fibrous materials
15 01 01	Paper and cardboard packaging.
15 01 02	Plastic packaging.
15 01 03	Wooden packaging.
15 01 04	Metallic packaging.
15 01 05	Composite packaging.
15 01 06	Mixed packaging.
15 01 07	Glass packaging.
15 01 09	Textile packaging.
15 02 03	Absorbents, filter materials, wiping clothes and protective clothing other than those mentioned in 15 02 01.
16 01 17	Ferrous metal.
16 01 18	Non-ferrous metal.
16 01 19	Plastic.
16 01 20	Glass.
16 02 14	Discarded equipment other than those mentioned in 16 02 09 to 16 02 13.
16 02 16	Components removed from discarded equipment other than those mentioned in 16 02 15.
16 03 04	Inorganic wastes other than those mentioned in 16 03 03.
16 03 06	Organic wastes other than those mentioned in 16 03 05.
17 01 01	Concrete.
17 01 02	Bricks.
17 01 03	Tiles and ceramics.
17 01 07	mixture of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06
17 02 01	Wood.
17 02 02	Glass.
17 02 03	Plastic.
17 04 01	Copper, bronze, brass.
17 04 02	Aluminium.
17 04 03	Lead.

Code	Description
17 04 04	Zinc.
17 04 05	Iron and steel.
17 04 06	Tin.
17 04 07	Mixed metals.
17 04 11	cables other than those mentioned in 17 04 10
17 05 04	Soil and stones other than those mentioned in 17 05 03.
17 06 04	Insulation materials other than those mentioned in 17 06 01 and 17 06 03.
17 08 02	gypsum-based construction materials other than those mentioned in 17 08 01
17 09 04	Mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03.
18 01 04	wastes whose collection and disposal is not subject to special requirements in order to prevent infection (for example dressings, plaster casts, linen, disposable clothing, diapers)
19 05	Wastes from aerobic treatment of solid wastes.
19 10 01	Iron and steel waste.
19 10 02	Non-ferrous waste.
19 10 04	Fluff-light fraction and dust other than those mentioned in 19 10 03.
19 12 01	Paper and cardboard.
19 12 02	Ferrous metal.
19 12 03	Non-ferrous metal.
19 12 04	Plastic and rubber.
19 12 05	Glass.
19 12 07	Wood other than that mentioned in 19 12 06.
19 12 08	Textiles.
19 12 09	Minerals (for example sand, stones).
19 12 10	Combustible refuse (refuse derived fuel).
19 12 12	Other wastes (including mixtures of wastes) from mechanical treatment of wastes other than those mentioned in 19 12 11.
20 01 01	Paper and cardboard.
20 01 02	Glass.
20 01 08	Biodegradable kitchen and canteen waste.
20 01 10	Clothes.
20 01 11	Textiles.
20 01 25	Edible oil and fat.
20 01 28	Paints, inks, adhesives and resins other than those mentioned in 20 01 27.
20 01 30	Detergents other than those mentioned in 20 01 29.
20 01 36	Discarded electrical equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35.
20 01 38	Wood other than that mentioned in 20 01 37.
20 01 39	Plastics.
20 01 40	Metals.
20 01 41	Wastes from chimney sweeping.
20 02	Garden and park wastes (including cemetery waste).
20 03 01	Mixed municipal waste.
20 03 02	Waste from markets.
20 03 03	Street-cleaning residues.
20 03 07	Bulky waste.

5.2 QUANTITIES OF WASTE ACCEPTED/CONSIGNED

All waste details accepted at or consigned from the facility in 2008 are included in the electronic report (Appendix 1 attached).

5.3 PROPOSAL TO INCREASE THE ANNUAL THROUGHPUT OF THE FACILITY

It was agreed with the Agency that a Waste Licence Review is required to increase the total amount of waste accepted by the facility.

In July 2008 a Licence Review Application was submitted to revise the site boundary and specify facility changes required for an increase in waste acceptance tonnage up to 200,000 tonnes/annum. The Application specified a number of improvement projects with planning permission, where required, to ensure there was no significant impact on the environment from the facility.

An Environmental Impact Statement was prepared in Quarter 4, 2008 and it was submitted to the EPA in January 2009. The Licence Review Application is currently under consideration by the EPA.

6.0 EMP REPORT SUMMARY

The remainder of this document contains the following elements as required by Agency's 'Draft Guidance on Environmental Management Systems and Reporting to the Agency.

- Schedule Of Objectives And Targets 2008
- Proposed Schedule Of Objectives And Targets 2009
- Resource And Energy Consumption
- Site Management
- Financial Provision

6.1 PROGRESS REVIEW OF SCHEDULE OF OBJECTIVES AND TARGETS 2008

Introduction

Environmental Objectives are specific and defined goals that need to be achieved in order to meet the requirements of the Environmental Policy. The purpose of establishing objective and targets is to ensure that the process of continual improvement is formalised and clearly set out.

Table 6.1: Summary of the Schedule of Objectives and Targets 2008

Objective	Target
1. Diversion of biodegradable Waste from landfill	<ul style="list-style-type: none"> ▪ Improve efficiency of Mechanical Treatment Plant ▪ Site acquisition for Bio-stabilisation Plant
2. Increase Recycling Rates	<ul style="list-style-type: none"> ▪ Improve efficiency of Mechanical Treatment Plant ▪ Waste Recycling Educational Campaign ▪ Expand Fleet of Dual Compartment Trucks and Composting trucks ▪ Cover cardboard acceptance and storage area
3. Improve On-Site Drainage and Waste Water Treatment Facilities	<ul style="list-style-type: none"> ▪ Installation of new oil interceptor ▪ Complete diversion of roof drains from wwtp ▪ Measure influent/effluent in wwtp to identify further control measures
4. Reduce Dust Emissions	<ul style="list-style-type: none"> ▪ Cover Timber Shredding Area
5. Optimise Litter Control	<ul style="list-style-type: none"> ▪ Cover Optibag Storage Area
6. Assure Compliance with Waste Licence	<ul style="list-style-type: none"> ▪ Complete Waste Licence Review

6.1.1. Objective 1: Diversion of biodegradable Waste from landfill

Target 1: Improve efficiency of Mechanical Treatment Plant

It was identified that the efficiency of the MBT facility could be improved if the feed material to the facility was pre shredded. The potential benefits of pre-shredding are:

- Uniform controlled feed will improve process control
- Bulky combination wastes will be suitable for processing through MBT(e.g. mattresses- metal textile separation)
- bulky materials reduced in size and would prevent blockages
- more biodegradable waste will be separated in trommel thereby reducing discharges to landfill when partially stabilised biowaste is sent for composting
- Materials suitable for RDF will be more readily extracted as they will not be hindered by bulky waste.
- improved metal extraction as metals will not be hidden by "bulky wastes" as they pass under magnets/eddy current separators
- residual wastes to landfill reduced significantly

Action Plan:

- Trial mobile pre shredding systems to identify optimal system in Q1/Q2 2008
- If approved, proceed with design and purchase of permanent pre-shredder in Q3 2008
- Install and commission pre-shredder in Q4 2008

Progress:

Shredding trials completed in Q1, Q2 and Q3 2008. Optimum shredder identified and trials confirmed that quantity of residual waste for disposal in landfill can be achieved. Approval to proceed with design and purchase of a permanent shredder was given and new shredder was ordered in Q4 2008. Shredder was installed in Q1 2009 and commissioning is ongoing with optimisation trials scheduled for March/April 2009.

Target 2: Site acquisition for Bio-stabilisation Plant

It is proposed to identify and purchase a suitable site for the development of a dedicated composting facility in 2008. The purpose of the facility will be to treat and compost all organic fines and brown bin materials generated through Mr. Binman. The composted organic fines will be processed through a series of screens to remove inorganic materials, plastics, etc. The recovered plastics, etc will be suitable for recycling/recovery. This system will significantly reduce the amount of untreated biodegradable waste and residual inorganics /plastics being sent to landfill.

Action Plan:

- Source suitable sites in Q1 2008
- Acquire suitable site in Q2 2008
- Initiate design and planning for facility in Q2/Q3 2008
- Initiate application for Waste permit to operate facility in Q4 2008/Q12009.
- Build/modify facility Q1/Q2 2009
- Commission composting facility Q3 2009
- Commence brown bin collection of commercial waste in Q1 2009
- Commence brown bin collection of house waste in Q2 2009.

Progress:

A suitable site was identified and acquired by Greenport Environmental Ltd, a subsidiary of Mr. Binman Ltd in Q1 and Q2 2008 respectively. Change of use planning was submitted in 2008 and a decision on this matter is due in March 2009. Subject to the change of use planning a full planning application will be submitted to extend the existing facility to treat 40,000t of organic waste. The facility will comprise of a biogasing facility which will generate electricity and a composting facility design to treat source separated organic waste and mechanically separated organic waste.

Due to delays in the planning process and the inclusion of a biogas facility, the project will not be completed as per the schedule. A new schedule is proposed in the objectives and targets for 2009.

6.1.2. Objective 2: Increase Recycling Rates

Target 1: Improve efficiency of Mechanical Treatment Plant

See Target 1 of Objective 1 above for progress made.

Target 2: Waste Recycling Educational Campaign

Action Plan:

- Mail shots to all customers with invoices which will include recycling information, and incentives to recycle(discounts) by Q4 2008

Progress: Complete, recycling information included on each invoice payment run

- Newspaper/radio advertisements encouraging recycling will be completed in Q1-Q4 2008.

Progress: Complete, newspaper advertisements placed in paper and Environment Manager conducted interviews on 95FM, West limerick radio and East Limerick radio in 2008 during recycling week to encourage recycling and answer any callers questions.

- Develop Mr. Binman website further with recycling information and develop payment on-line system which will encourage customers to use the website and visit the recycling pages by Q4 2008. **Progress: Complete**

Progress: Complete, website improved to provide more information on recycling

- Continue school tours of our Recycling facility to encourage children to recycle at home and at school. This will be subject to resources available due to possible constraints imposed by Limerick County Council. Continuation of school tours will also be conditional on a safety risk assessment being completed for a large group of children on a very busy site. Q1-Q4 2008

Progress: Complete, 17 school tours completed in 2008

Target 3 :Continuous Upgrade of Fleet of Dual Compartment and Composting Trucks

Mr. Binman will continue upgrading its fleet of bin trucks to dual compartment trucks which will allow for simultaneous segregated collection of dry recyclables and municipal waste. Mr Binman will further expand its fleet in 2008 to include a dedicated Rotapress composting truck which will be designed specifically for compostable waste and leachate containment.

Action Plan: Purchase 8 new dual compartment trucks and one composting truck in Q1 2008.

Progress: 8 new dual compartment trucks were purchased in 2008 and one composting truck was ordered in 2008 for 2009.

Target 4: Cover Cardboard Acceptance and Storage Area

The area dedicated to receiving cardboard for further processing and the area used to store baled cardboard is not covered and can result in dry recyclable material becoming wet from precipitation.

Action Plan: Cover cardboard area with a permanent roof structure by Q1 2008

Progress: Complete

6.1.3. Objective 3: Improve On-Site Drainage and Waste Water Treatment Facilities

Target 1: Installation of new oil interceptor

A new oil interceptor will eliminate silt and oil discharges from the "clean" surface areas within the facility and will assure compliance with the surface water discharge limits in the Waste Licence.

Action plan:

- Receive approval from EPA to install new oil interceptor outside site boundary or redefine site boundary as part of Waste Licence Review by Q2 2008
- Install new oil interceptor and accessible sampling point and associated pipe work by Q3 2008
- Monitor discharges to confirm compliance with ELVs by Q4 2008
- Maintain Oil Interceptor at frequency recommended by suppliers by Q4 2008

Progress: A new Class 1 full retention silt trap/oil interceptor was installed and commissioned. A monitoring and maintenance procedure and schedule was completed.

Target 2: Complete diversion of roof drains from wwtp

It was identified in 2007 that many of the roof drains from the facility drain to the wwtp or oil interceptor. During heavy or persistent precipitation periods, significant volumes of uncontaminated water are discharged to the wwtp causing hydraulic overloading of the plant. While some measures were put in place during 2006/2007 to control hydraulic fluctuations, this can still be a cause for inconsistent feed and dilution in the wwtp .

Action Plan:

- Complete tie-ins to new diversion pipe work from south side roof drains by Q2 2008
- Complete diversion of roof drains on north and west site of facility by Q2 2008
- Ensure any new roof drains are diverted away from wwtp/oil interceptor drains.

Progress: 95% Complete. One additional line was identified for diversion. This is scheduled for diversion in 2009.

Target 3: Measure influent/effluent in wwtp to determine compliance with limits and identify further control measures

In order to identify control measures required to assure compliance with the ELVs for wwtp discharges, it will be necessary to measure influent and effluent information over an extended period. This will identify fluctuations in flows, and the full range of components in the influent and effluent (eg surfactants, BOD, COD, suspended solids, nutrients). This information will help identify what control measures must be put in place to provide a consistent feed to the wwtp and prevent "hits" which could upset the biological system. Diversion of the roof drains will be completed first as this may have a significant positive impact on the flows through the wwtp.

Action Plan:

- Weekly sampling of influent and effluent and extensive suite of analysis of samples by Q2 2008
- Recording of weather conditions to identify potential flow fluctuations by Q2 2008
- Recording of forward feed and levels in storage tanks daily by Q2 2008

- Assess data with wwtp consultant and identify control measures required to provide consistent feed by Q3 2008
- Begin implementation of corrective actions by Q3 2008

Progress: On-site laboratory set up in 2008. Full time Environmental Analyst employed to complete sampling, monitoring and operation of wwtp. Extensive analysis programme completed. Corrective actions identified to optimise operation of wwtp - procedures for daily monitoring and regular maintenance of wwtp put in place. Final corrective action identified to assure compliance on a consistent basis identified and this project is due for completion in Q1 2009. All wastewater sent off-site for further treatment in 2008.

6.1.4 Objective 4: Reduce Dust Emissions

Target 1: Cover Timber Shredding Area

Covering the timber shredding area will significantly reduce dispersion of dust from this area.

Action Plan:

- Submit planning permission to cover timber shredding area in Q1 2008
- Subject to planning permission complete risk assessment to assess hazards associated with generating dust in an enclosed area - inhalation, dust explosions by Q3 2008
- Subject to planning and resolution of potential safety issues design enclosure for timber shredding area by Q3 2008
- Build enclosure in Q42008/Q1 2009.

Progress: Planning permission received for covering timber area in 2008. Due to other construction activities in 2008 (optibag area, cardboard area, several rainwater diversion projects, this project was not completed as per the proposed schedule.

6.1.5 Objective 5: Optimise Litter Control

Target 1: Cover Optibag Storage Area

The optibag storage area is not covered and on windy days this may be a source of litter on-site.

Action Plan:

- Submit planning permission to cover optibag storage area in Q1 2008
- Subject to planning permission complete risk assessment to assess hazards associated by Q3 2008
- Subject to planning and resolution of potential safety issues design enclosure for optibag storage area by Q3 2008

- Build enclosure in Q4 2008/Q1 2009.

Progress: Planning permission received, risk assessment completed, design completed and enclosure completed in 2009. All optibags/dry recyclables are now fully covered.

6.1.6 Objective 6: Assure Compliance with Waste Licence

Target 1: Complete Waste Licence Review

There are a number of compliance issues that can be resolved through a Waste Licence Review:

- Compliance with waste tonnage accepted at the facility
- Definition of new site boundary to allow movement of dust monitoring points to more appropriate locations
- Definition of new site boundary to allow installation of new oil interceptor which will assure compliance with surface water emission limit values.
- Definition of new site boundary to allow new roadway and carpark which will ensure safer access egress and parking for the facility and will reduce dust emissions from the facility.
- Permission to apply for alternative opening hours in exceptional circumstances, subject to agreement with the Agency.

Action Plan:

- Complete EIS and Licence Review Application by Q2 2008

Progress: Complete, Licence Review Application submitted in July 2008

6.2 Proposed Objectives and Targets 2009

Table 6.2: Summary of the Schedule of Objectives and Targets 2009

Objective	Target
1. Diversion of biodegradable Waste from landfill	<ul style="list-style-type: none"> ▪ Improve efficiency of Mechanical Treatment Plant ▪ Receive planning for Biogas/Composting facility
2. Increase Recycling Rates	<ul style="list-style-type: none"> ▪ Improve efficiency of Mechanical Treatment Plant ▪ Initiate source separated collection of organic waste to reduce quantity of organic fines to landfill ▪ Waste Recycling Educational Campaign ▪ Expand Fleet of Dual Compartment

	Trucks and Composting trucks
3. Improve On-Site Drainage and Waste Water Treatment Facilities	<ul style="list-style-type: none"> ▪ Complete diversion of roof drains from wwtp ▪ Measure influent/effluent in wwtp to identify further control measures
4. Assure Compliance with Waste Licence	<ul style="list-style-type: none"> ▪ Complete Waste Licence Review

6.2.1. Objective 1: Diversion of biodegradable Waste from landfill

Target 1: Improve efficiency of Mechanical Treatment Plant

It was identified that the efficiency of the MBT facility could be improved if the feed material to the facility was pre shredded. The potential benefits of pre-shredding are:

- Uniform controlled feed will improve process control
- Bulky combination wastes will be suitable for processing through MBT(eg mattresses- metal textile separation)
- bulky materials reduced in size and would prevent blockages
- more biodegradable waste will be separated in trommel thereby reducing discharges to landfill when partially stabilised biowaste is sent for composting
- Materials suitable for RDF will be more readily extracted as they will not be hindered by bulky waste.
- improved metal extraction as metals will not be hidden by "bulky wastes" as they pass under magnets/eddy current separators
- residual wastes to landfill reduced significantly

Action Plan:

- Install and commission "Terminator" pre-shredder in Q1 2009
- Complete optimisation trials by Q2 2009
- Measure % diversion of oversize residual waste to landfill
- Modify plant to allow second run of residual waste stream through second trommel and picking line to optimise diversion of waste from landfill by Q2 2009

Target 2: Receive planning for Biogas/Composting facility

A site for the development of a biogas/composting facility was acquired and change of use planning application was submitted in 2008. The purpose of the facility will be to treat and compost organic fines and brown bin materials generated through Mr. Binman. This system will significantly reduce the amount of untreated biodegradable waste currently sent to landfill.

Action Plan:

- Complete detailed design of facility in Q1 2009
- Submit full planning application for expanded facility subject to change of use planning approval by Q2 2009

- Submit Stage 1 Application to Department of Agriculture & Food by Q2 2009
- Submit EIS and Waste Licence Application to EPA in Q2/Q3 2009
- Commence brown bin collection of commercial waste in Q1 2009
- Commence brown bin collection of household waste in Q3 2009.

6.2.2. Objective 2: Increase Recycling Rates

Target 1: Improve efficiency of Mechanical Treatment Plant

See Target 1 for Objective 1 above

Target 2: Initiate source separated collection of organic waste to reduce quantity of organic fines to landfill

Action Plan:

- Initiate collection of source separated organic waste from commercial outlets in Q1 2009
- Initiate collection of source separated organic collection from households by Q3 2009
- Dispose of all suitable source separated organic waste to a composting facility, subject to capacity availability.

Target 3: Waste Recycling Educational Campaign

Action Plan:

- Mail shots to all customers with invoices which will include recycling information, and incentives to recycle (discounts) by Q4 2009
- Complete awareness campaign with commercial outlets to optimise organic collection by Q1 2009
- Complete awareness campaign with commercial outlets to optimise organic collection by Q3 2009
- Continue school tours of our Recycling facility to encourage children to recycle at home and at school by Q1-Q4 2009

Target 3 :Continuous Upgrade of Fleet of Dual Compartment and Composting Trucks

Target 4: Upgrade of Fleet

Mr. Binman will continue upgrading its fleet of bin trucks to dual compartment trucks which will allow for simultaneous segregated collection of dry recyclables and municipal waste. Mr Binman will further expand its fleet in 2009 to include a dedicated Rotapress composting truck which will be designed specifically for compostable waste and leachate containment.

Action Plan: Purchase new dual compartment trucks and one composting truck by Q4 2009.

6.2.3. Objective 3: Improve On-Site Drainage and Waste Water Treatment Facilities

Target 1: Complete diversion of roof drains from wwtp

During heavy or persistent precipitation periods, significant volumes of uncontaminated water were discharged to the wwtp or oil interceptor causing hydraulic overloading of the plant. Significant works were completed in 2008 to divert the majority of this uncontaminated roofwater. Two additional lines were identified and will be diverted in 2009

Action Plan:

- Install roof drain diversion line to soakaway for optibag storage extension by Q1 2009.
- Cover RDF baler/can area by Q4 2009 and modify remaining roof drains to divert all remaining uncontaminated roofwater from wwtp to soakaway.

Target 2: Measure influent/effluent in wwtp to determine compliance with limits and identify further control measures

In 2008 control measures were identified and put in place to optimise operation of the wwtp to assure compliance with the ELVs for wwtp discharges following extensive measurement of influent and effluent information over an extended period. These measures included installation of an on-site laboratory, diversion of clean area surface water from wwtp and implementation of a wwtp control and maintenance procedure. The wwtp is now operating in steady state and one further modification is proposed to ensure compliance with emission limit values on a consistent basis.

Action Plan:

- Continue regular monitoring and maintenance of wwtp.
- Install polymer dosing pump to optimise suspended solids discharge and assure compliance with elvs by Q1 2009
- Generate at least six weeks of continuous data to demonstrate compliance by Q2 2009
- Apply to EPA to revert to discharging to FE1 by Q2 2009

6.2.4 Objective 4: Assure Compliance with Waste Licence

Target 1: Complete Waste Licence Review

A Waste Licence Application was submitted in July 2008 in order to resolve a number of potential compliance issues. Additional information was requested including an Environmental impact statement which was prepared in 2008 and submitted in January 2009. The application is currently being reviewed by the EPA.

There are a number of compliance issues that will be resolved through a Waste Licence Review:

- Compliance with waste tonnage accepted at the facility
- Definition of new site boundary to allow movement of dust monitoring points to more appropriate locations
- Definition of new site boundary to allow new roadway and carpark which will ensure safer access egress and parking for the facility and will reduce dust emissions from the facility.
- Permission to apply for alternative opening hours in exceptional circumstances, subject to agreement with the Agency.

Action Plan:

- Submit EIS by Q1 2009
- Liaise with EPA regarding progress of Licence Application Review
- Review new Licence when received to ensure compliance with all conditions of Licence

6.3 Resource and Energy Consumption

6.3.1 WATER CONSUMPTION

Table 6.3: Water Consumption for the reporting period Jan. - Dec. 2008

Source	Total m ³
Truck Wash	1131.9
Onsite water usage	635.25

*Estimate based on 2007 volumes

6.3.2 Electricity Consumption

Table 0.4 Mr. Binman Ltd. Electricity Consumption January– December 2008

Month	Electricity Consumed(KWH)
January	116686
February	109519
March	123983
April	126098
May	113389
June	111171
July	120424
August	96423
September	106242
October	114413
November	108751
December	108505
Total	1356604

6.3.3 Fuel Consumption

Table 6.5: Fuel Consumption for the reporting period

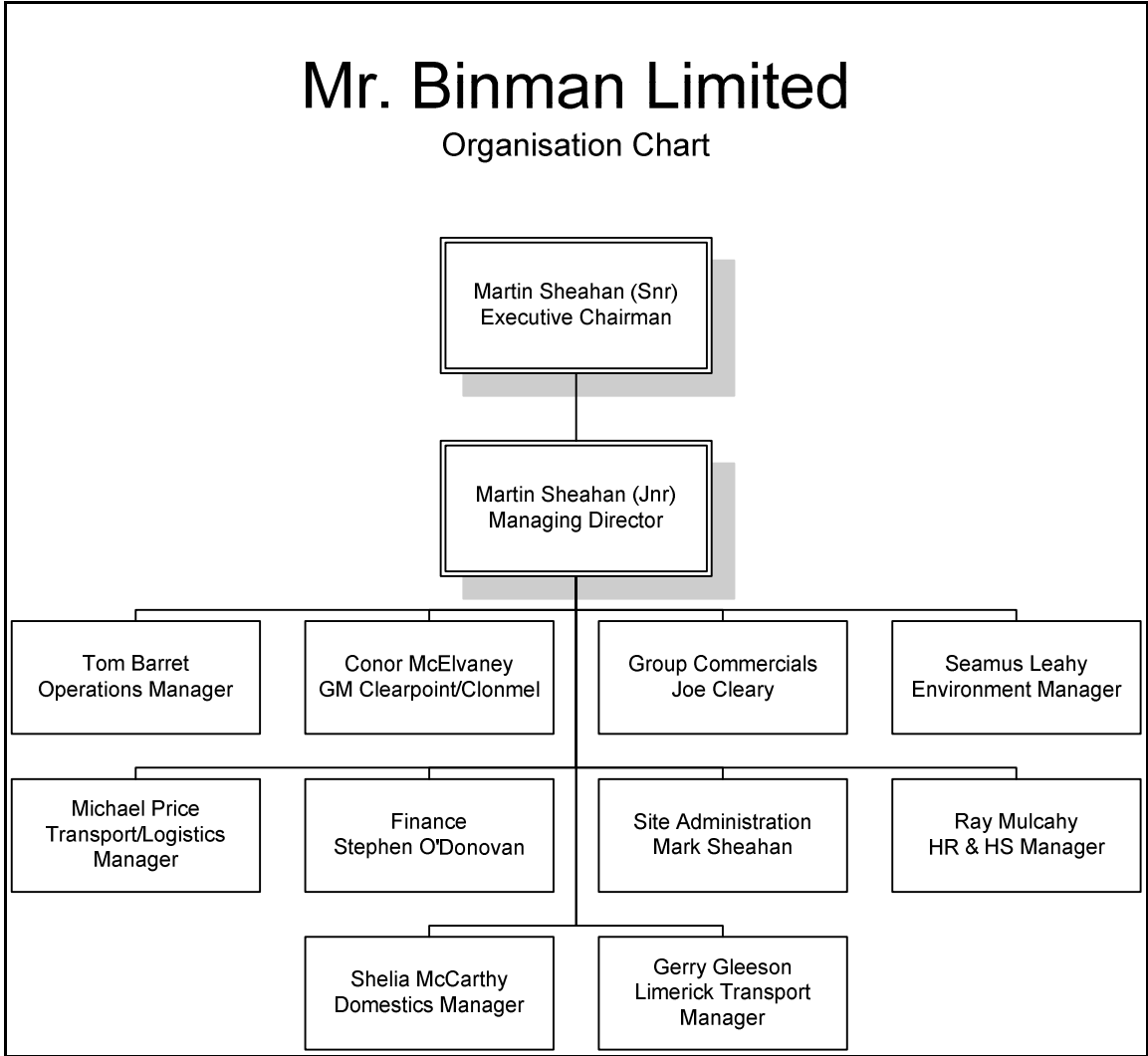
Diesel (off-site)	1,710,000 litres
Agricultural diesel (on-site)	270,000 litres

7.0 SITE MANAGEMENT

7.1 FORMAL MANAGEMENT STRUCTURE

This management structure hierarchy sets out the chain of command within Mr. Binman Ltd.

Figure 0.1: Mr. Binman Ltd. Management Structure



7.1.2 SITE PERSONNEL WITH MANAGERIAL RESPONSIBILITY

Mr. Binman Ltd. has an expert Management Team that is responsible for the Management and Supervision of all Waste Activities at the Mr. Binman facility. The Management Team was extended significantly during 2007 and the Team is committed to ensuring current operations and future growth occurs in an environmentally sustainable manner.

Details of new Management Personnel with Environmental responsibilities were submitted to the EPA in January 2008 in line with the conditions of the Waste Management Licence.

8.0 FINANCIAL PROVISION

8.1 REVIEW OF ENVIRONMENTAL LIABILITIES RISK ASSESSMENT & RESIDUALS MANAGEMENT PLAN

The existing ELRA for the facility was originally prepared in 2001 and was reviewed annually for submission to the EPA as part of the AER. A comprehensive review of the ELRA and the financial provisions in place was conducted in 2008 with the co-operation of our insurance company and bank and it was identified that a significant elements of the ELRA are no longer relevant or appropriate. Along with the existing insurance in place for the facility, it was also confirmed that a limited financial provision was put in place in 2001 but this did not reflect the current status of the site.

A Licence Review Application was submitted to the EPA in July 2008 and a revised Waste Licence is anticipated in 2009. It is anticipated that the conditions relating to the ELRA/RMP and related financial provision will be revised as part of the Licence Review. Mr Binman is committed to completing a comprehensive review of the ELRA/RMP in line with the requirements of the new Licence conditions and following discussions with our insurance company and bank, it is committed to putting in place an appropriate and up to date financial provision which reflects the current status of the site.

8.2 CURRENT ELRA

The original costing for the potential site environmental liabilities was based on those considered to be restricted to the confines of the site. As such, this review of the original ELRA is restricted to the confines of the site and therefore, any costs incurred in addressing same will be based on the following: -

- The confines of the site.
- Costs were limited to removal and safe disposal of waste remaining on-site following an emergency event or decommissioning and closure of the site.
- A maximum of 500 tonnes of waste can be stored on site at any one time, - environmental liabilities cover should account for the cost for the clean-up and removal of the maximum amount of waste that may be stored on-site at any given time, i.e. 500 tonnes.
- Costs associated with the dismantling of infrastructure are covered within the sites general insurance cover.
- Costs associated with undertaking Bund Integrity Assessments of all bunds at the site.
- Costs associated with paving the remaining gravel hardcore area of the site with concrete hardstanding (to render the site yard impervious).
- Costs associated with the implementation of the recommendations of the firewater retention risk assessment.
- The removal and safe disposal of firewater remaining on-site following an emergency event.
- Costs for the removal of all waste materials from the site, in the event of closure/decommissioning of the site.

A summary of the overall liabilities and costs, i.e. the findings of the audit and recommended actions along with estimated costs, where relevant, associated with the waste transfer facility are given in Table 9.1.

Where potential contamination issues have been identified, and no investigations have been undertaken to determine the presence and extent of any contamination, estimated site investigation/remedial costs have been provided. These figures are based on a 'worst case scenario' taking into account the nature of the potential contamination, the environmental sensitivity of the site and the size of the potentially contaminated area. These figures do not take into account costs, which could be incurred in relation to clean-up, off-site, or third party damages. The sums should not be considered as precise estimates as they may be subject to large variances.

Table 8.1: Overall Environmental Liabilities and Estimated Costs

Potential Contamination Issue	Site Sensitivity	Recommendation Action	Estimated Costs
<p>The surface water and truck wash drainage system at the site is quite old and the integrity of the system has not been tested.</p>	<p>In case of a leak from any part of the surface water or truck wash drainage system, potentially polluting substances may discharge to ground prior to treatment/containment in the wastewater treatment plant at the site, (thereby resulting in potential contamination of groundwater quality).</p>	<p>Implement an inspection/assessment of the surface water and truck wash collection/drainage system at the site to determine the integrity of the system. Following the inspection of the surface water and truck wash drainage network, carryout repairs on all sections of the surface water and/or foul sewerage drainage system at the site that is not fully watertight, sealed or intact.</p>	<p>€3K</p> <p>To be determined based on findings of the inspection of the surface water and foul sewerage drainage system.</p>
<p>Any ground contamination on-site has the potential to impact upon groundwater quality, soils and surface water quality in the area.</p>	<p>Due to the nature of site activities, there is a potential to contaminate groundwater and/or soils underlying the site.</p>	<p>The groundwater sampling and analysis program should be continued, (extended over a longer period of time) to monitor the groundwater quality beneath the site during the winter and summer months, determine if there is any change in groundwater quality over time.</p> <p>The groundwater monitoring programme should also be continued upon closure of the site to ensure that any potential for residual contamination does not pose a risk to groundwater quality post-closure and determine the requirement or otherwise for implementation of measures for remediation of soil/groundwater, notwithstanding additional remedial work that may be required, particularly if the site is to be redeveloped for non-industrial use. Cost of carrying out the groundwater monitoring programme for a period of 1 year is estimated at approx. €2,500.</p> <p>The cost for implementation of measures, if required, in relation to remediation of potential groundwater contamination cannot be determined at this stage, as no contamination has been detected to date. In the event that future monitoring results detect contamination, remedial costs will be determined at that time to account for the nature and level of contamination detected, if any.</p>	<p>€2.5K.</p> <p>Costs to be determined based on findings of ongoing monitoring conducted at the site.</p>

Table 8.2: Overall Environmental Liabilities and Estimated Costs (continued)

Potential Contamination Issue	Site Sensitivity	Recommendation Action	Estimated Costs
<p>Materials handling and storage shortcomings were observed.</p> <p>All used and disused underground storage tanks (slurry tank previously used to store wastewater) should be decommissioned.</p> <p>The integrity of fuel storage bund adjacent to the transfer building and the oil storage bund to the rear of the site garage has not been tested.</p>	<p>Inadequate secondary containment of potentially polluting substances within the site garage area. In case of a leak or spillage, potentially polluting substances may discharge to ground (thereby resulting in potential contamination of groundwater quality and/or soils) or enter the on-site surface water drainage system resulting in potential contamination of the receiving environment: Potential liability with respect to Water Pollution Acts 1977 and 1990 and the Fisheries Consolidation Act 1959.</p> <p>Leakage from these storage areas may pose threat to the underlying ground water beneath the site.</p> <p>Small remaining truck parking area and plant storage area is surfaced with hardcore material.</p>	<p>Implement bunding measures required to improve storage facilities within the site garage and provide adequate secondary containment throughout the site, and recommend proposals for the decommissioning of disused underground/over ground storage tanks.</p> <p>Undertake a bund integrity assessment of all bunds constructed at the site to establish that all other bunds constructed at the site provide completely sealed containment.</p> <p>When completed, it is recommended that any defects be remedied, and the effectiveness of the remedial works be checked when completed.</p> <p>The remaining hardcore surfaced area of the site should be paved with concrete hardstanding to render the site yard impervious.</p>	<p>€5K</p> <p>To be determined based on findings of bunding assessment.</p> <p>€2K</p>

Potential Contamination Issue	Site Sensitivity	Recommendation Action	Estimated Costs
<p>There is currently little provision for the containment of firewater that may be generated at the site in the event of an accident/emergency situation (fire event) at the site.</p>	<p>In the event of fire at the site, firewater and/or extinguishers used to fight the fire may potentially become contaminated and discharge to the surface water drainage system at the site resulting in pollution of the receiving environment.</p>	<p>Provide for the costs associated with the implementation of the recommendations of the firewater retention risk assessment.</p> <p>Removal and safe disposal of firewater remaining on-site following an emergency event.</p>	<p>To be determined based on further assessment of the Fire Water Retention Risk Assessment. ~€70K €40K</p>
<p>In the event of cessation of activities at the site, any residual waste would need to be removed and disposed of in an appropriate manner.</p>	<p>Removal and safe disposal of waste remaining on-site following an emergency event (e.g. fire or spillage event) or decommissioning and closure of the site.</p>	<p>Provide for the cost for the clean-up of the maximum amount of waste that may be stored on-site at any given time, i.e. removal, transportation and disposal for total quantity of waste of up to 500 tonnes.</p>	<p>€110K</p>

8.3 DECOMMISSIONING/CLOSURE OF THE SITE

Environmental liabilities cover in the event of decommissioning/closure of the site should account for the cost for the clean-up and removal of the maximum amount of waste that may be stored on-site at any given time. The maximum amount of waste that can be stored on site at any one time is approximately 500 tonnes. The site remains low risk with respect to potential soil and groundwater contamination as, although there has been an increase in the tonnage of waste materials processed at the facility, there have been no significant changes in nature of on-site waste management practices.

Implementation of the recommendations specified within the Fire Water Retention Risk Assessment will ensure that inputs to, and subsequent contamination of groundwater, surface water, air and soil environments do not occur from accident or emergency conditions (fire event) at the facility. The costs associated with the implementation of the recommendations of the firewater retention risk assessment (i.e. installation of a static fire fighting water storage tank at the site and provision of hose reels throughout the facility) are not quantifiable at present. The costs associated with the installation of the fighting water storage tank and the firewater retention pond/storage tanks are estimated at approximately €70,000.

The costings associated with the dismantling of infrastructure arising from malicious damage or decommissioning and closure of the waste transfer and recycling facility is already covered within the existing site's general insurance cover. However, it is contended that the site infrastructure would not require dismantling on closure as the general buildings and offices could be converted to use for agricultural practices or sold as part of any future on-site industrial developments at the site.

The cost for the clean-up (removal/transport and disposal by Mr. Binman Ltd.) of the maximum amount of waste that may be stored on-site at any given time at the Mr. Binman Ltd., waste transfer facility (500 tonnes) is estimated at a maximum of €110,000; 500 tonnes of waste @ €220 per tonne. It is recommended that the groundwater monitoring programme should be continued for a period of at least 1 year after closure of the site, in the event of decommissioning/closure of the Mr. Binman Ltd. Facility, estimated cost of €2,500.

Cost	£182,500
-------------	-----------------

8.4 EMERGENCY EVENT

Environmental liabilities cover in the event of an accident/emergency event at the site should account for the cost for the removal of contaminated fire-water, if generated (for fire event only). Implementation of the recommendations specified within the Fire Water Retention Risk Assessment will ensure that inputs to, and subsequent contamination of groundwater, surface water, air and soil environments do not occur from accident or emergency conditions (fire event) at the facility. The costs associated with the implementation of the recommendations of the firewater retention risk assessment (i.e. installation of a static fire fighting water storage tank at the site and provision of hose reels throughout the facility) are not quantifiable at present. The costs associated with the installation of the fighting water storage tank and the firewater retention pond/storage tanks are estimated at approximately €70,000.

The maximum volume of contaminated fire-water (should it be produced) that may be generated during a worst case scenario fire event at the Mr. Binman Ltd. waste transfer facility is 140.4 m³ (approximately 140 m³). Subsequent to the review of results of the water quality composition of the fire-water collected within the fire-water retention facility, uncontaminated fire-water will be discharged to the surface water drainage network, while contaminated fire-water will be discharged to the foul sewer or transported off-site for treatment/disposal by an appropriate waste contractor. Given that a specific limit value for the COD parameter is not currently quantified for a domestic type fire or a fire in industrial offices/warehouses, etc., it is assumed that the COD associated with the fire-water generated from a typical domestic type fire could be in the range of >1000 mg/l. The cost for the removal/transport (estimated at €635 per 20 m³: $€635 \times 140 \text{ m}^3 / 20 \text{ m}^3 = €4,550$) and disposal (estimated at €205 per m³: $€205 \times 140 \text{ m}^3 = €35,000$) of this volume of contaminated firewater is estimated at €39,550 (€4,550 + €35,000), i.e., approximately €40,000. It is recommended that the groundwater monitoring programme should be continued for a period of at least 1 year after closure of the site, in the event of an accident/emergency event at the Mr. Binman Ltd. Facility, estimated cost of €2,500.

Cost	£112,500
-------------	----------

8.5 SUMMARY

It is contended that the environmental liability aspects identified in Sections 6.2 – 6.3 should be considered for the following situations: -

Scenario 1: Company remains solvent and continues to operate.

Scenario 2: Company experiences financial difficulties and ceases to operate.

Scenario 1: In the event of a fire outbreak at the site, the site's existing general insurance policy will cover the costings associated with the reconstruction of on-site damaged buildings and infrastructure arising from a fire event. There will be no cost implications for the disposal of waste on-site as the customer will already have paid the company for this waste handling/disposal service. Therefore, it is likely that the company will remain solvent and continue to operate after the fire-event i.e., fire-outbreak and site closure unlikely to occur simultaneously. The cost of liabilities cover for Scenario 1 should provide for the containment, removal/transport and disposal of firewater in addition to undertaking the groundwater monitoring programme for a period of 1 year; and would amount to **€112,500** (excluding VAT) (refer to Section 6.3).

Scenario 2: In the event that the company were to experience financial difficulties and cease to operate then a worst case scenario will be assumed i.e. that the costs for the clean-up and removal of the maximum amount of waste that may be stored on-site at any given time will not be covered by fees previously paid by the customer for the waste handling/disposal service. The cost of liabilities cover for Scenario 2 should provide for the implementation of the recommendations of the firewater retention risk assessment, and the removal and safe disposal of waste remaining on-site following closure of the site and the costs associated with undertaking the groundwater monitoring programme for a period of 1 year; and would amount to **€182,500 (excluding VAT)** (refer to Section 6.1).

In calculating the value of financial provision for the site the sum required will be based on the greater of the costs for the two scenarios identified i.e. Scenario 2. In summary, it is considered that this reviewed environmental liabilities risk assessment requires the financial provision of a preliminary environmental liabilities pollution cover of **€182,500 (excluding VAT)** (in the form of bonding, financial allocation or an insurance premium) which, based on current information available, is expected to cover the environmental liabilities arising at the site in respect of the operational and decommissioning phases, i.e. will guarantee that the liabilities arising from:

Any environmental accident occurring during the operational phase of the site, and the decommissioning and closure of the waste transfer facility are financially provided for.

Appendix 1