

SOUTH TIPPERARY COUNTY COUNCIL



WALLER'S LOT RECYCLING CENTRE & WASTE TRANSFER STATION ANNUAL ENVIRONMENTAL REPORT

2008

Waste Licence Register No. W0200-01

Prepared by:

South Tipperary County Council
Emmet Street
Clonmel

March 2009

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1. INTRODUCTION

This Annual Environmental Report (AER) is required for submission to the Environmental Protection Agency in accordance with Condition 12.4 of Waste Licence W0200-01 for the Waller's Lot Site. This report presents the all the environmental data and other relevant information regarding the operation of the Waller's Lot Site for 2008

1.1. Scope and Purpose of the Report

South Tipperary County Council holds a waste licence (Register No W0200-01) for the operation of the Waller's Lot Site. The aim of this Annual Environmental Report (AER) is to provide a review of activities at the Waller's Lot Site during 2008.

This is the third AER to be submitted under Condition 12.4 of the licence. The Content of this AER is as defined in Schedule G of the waste licence.

1.2. Site Location

Waller's Lot is located on the edge of Cashel town.

The location of the site is shown on Figure 1.1.

The National Grid Reference for the site is: 208538969 139873395

1.2.1. Site Contacts

Name:	Mr. Pat Walsh
Job Title:	Site Manager
Telephone No:	(062) 64150
Fax No:	(062) 64157
Name:	Mr. Pat O' Dwyer
Job Title:	Deputy Site Manager:
Telephone No:	(052) 34882
Fax No:	(052) 34391
Name:	Ms. Ann Peters
Job Title:	Executive Engineer
Telephone No:	(052) 34397
Fax No:	(052) 34391

1.3. Environmental Policy

South Tipperary County Council is committed to conducting all activities such that they have a minimal effect on the environment.

South Tipperary County Councils main objectives are:

1. To comply with the Waste Licence (Licence Reg. W0200-01) and all relevant environmental legislation
2. To ensure that all facility infrastructure, as required in Condition 3 of the Waste Licence, is established
3. To ensure that all site personnel are familiar with:
 - a. the Conditions of the Waste Licence
 - b. the content of the Environmental Management System
 - c. all operational procedures
4. To reduce the potential for negative environmental impacts by a programme of continuous development on-site and appropriate mitigation measures.
5. To carry out all environmental monitoring, as required by Condition 9 of the Waste Licence.
6. To provide adequate training and awareness to all employees with regard to minimising environmental risks.

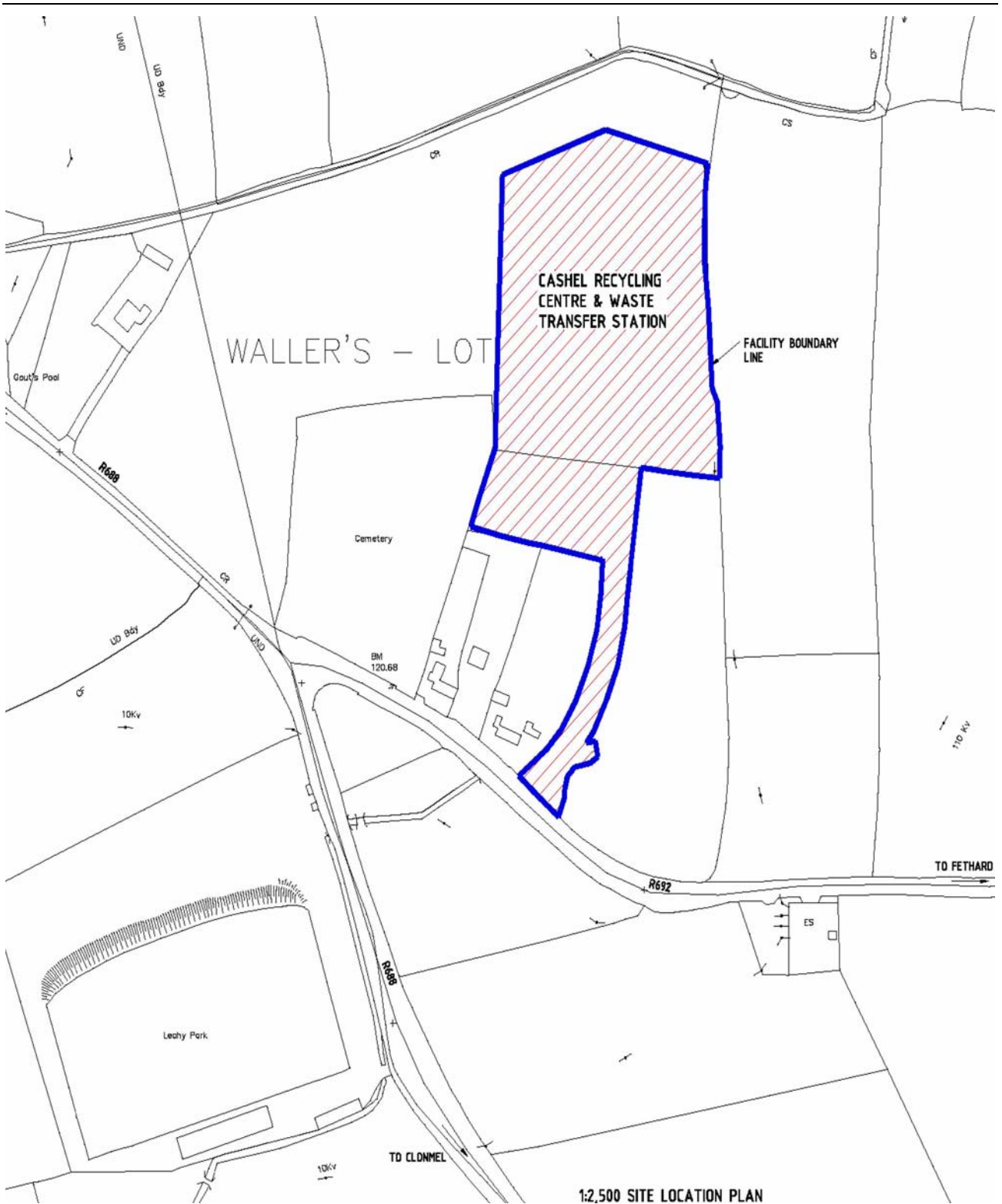


FIGURE 1.1: SITE LOCATION MAP

2 WASTE ACTIVITIES

The licensed waste disposal activities of the facility, in accordance with the Third Schedule of the Waste Management Act 1996 to 2003 are:

- Class 12. Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule
- Class 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.

The licensed waste disposal activities of the facility, in accordance with the Third Schedule of the Waste Management Act 1996 to 2003 are:

- Class 2. Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes).
- Class 3. Recycling or reclamation of metals and metal compounds
- Class 4. Recycling or reclamation of other inorganic materials
- Class 11. Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule.
- Class 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 the waste concerned is produced.

The main activity at the site is as a Civic Amenity Centre and as a Waste Transfer Station.

Schedule A of the waste licence outlines the types and volumes of waste that can be accepted at the site. They are shown in Table 2.1 below.

Table 2.1: Licensed Categories and Quantities of Waste for Disposal

Waste Category	Maximum Quantity (Tonnes per annum)
Household and Commercial Waste	21,000
Household Hazardous Waste	100
Total	21,100

2.1 Waste Quantity and Composition

The quantity of waste removed from Waller's Lot in 2008 is outlined in Table 2.2.

Table 2.2: Detailed Quantities of Waste removed from Waller's Lot 2008

Waste Type	EWC Code	Quantity of Waste (Tonnes)
Batteries	16 06 01*	1.36
Cardboard	15 01 01	32.3
C + D	17 09 04	119.76
Cooking Oil	20 01 25	0.22
Aluminium Cans	19 08 14	0.70
Dry Recyclables	20 03 01	2503.38
Fluorescent tubes	20 01 21	0.36
Glass	20 01 02	30.32
Household Hazardous	20 01 27 / 20 01 37	3.54
Lead Acid Batteries	16 06 01	4.9
Mattresses	20 03 07	18.58
Metal	20 01 40	218.5
Oil Filters	16 01 07	0.12
Tyres	16 01 03	7.72
Household Waste	20 03 01	6420.18
Newsprint	20 01 01	55.08
Steel Food Cans	15 01 04	3.12
Timber	20 01 37* / 20 01 38	369.44
WEEE	20 01 35* / 20 01 36	148.26
Waste Oil	13 08 99	2.88
Textiles	20 01 10 / 20 01 11	38.26
Plaster Board\Gypsum	17 08 02	20.46
Plate Glass	17 02 02	17.52
Plastic Bottles	15 01 02	1.52
Farm Plastic	15 01 02	89.0
	Total	10,107.48

3 MONITORING AND EMISSIONS

The monitoring carried out during 2008 is detailed below. All environmental monitoring locations are illustrated in Figure 3.1.

3.1 Dust Monitoring

Condition 9 and Schedule D.2.1 of the licence requires that the licensee conducts the following dust monitoring:

- Three times a year (two of which must occur between May and September) using the Standard Methods VDI2119 at onsite 4 locations.

3.1.1 Dust Monitoring Results

Dust Deposition Monitoring

Dust deposition monitoring was carried out in July, September and November. The results are shown in Table 3.1 below.

Dust Monitoring Point	Emission Limit	Q1 2008	Q2 2008	Q3 2008	Q4 2008	Median
D1 (mg/m ² /day)	350	2	5	6	N/A	5
D2 (mg/m ² /day)	350	5	4	7	N/A	5
D3 (mg/m ² /day)	350	10	27	5	N/A	10
D4 (mg/m ² /day)	350	13	24	91	N/a	24

Dust levels on site were well below limit value of 350 mg/m²/day at each of the monitoring stations during the monitoring period.

The fourth dust monitoring location was installed in January 2008.

WALLERS LOT WASTE TRANSFER STATION AND CIVIC AMENITY

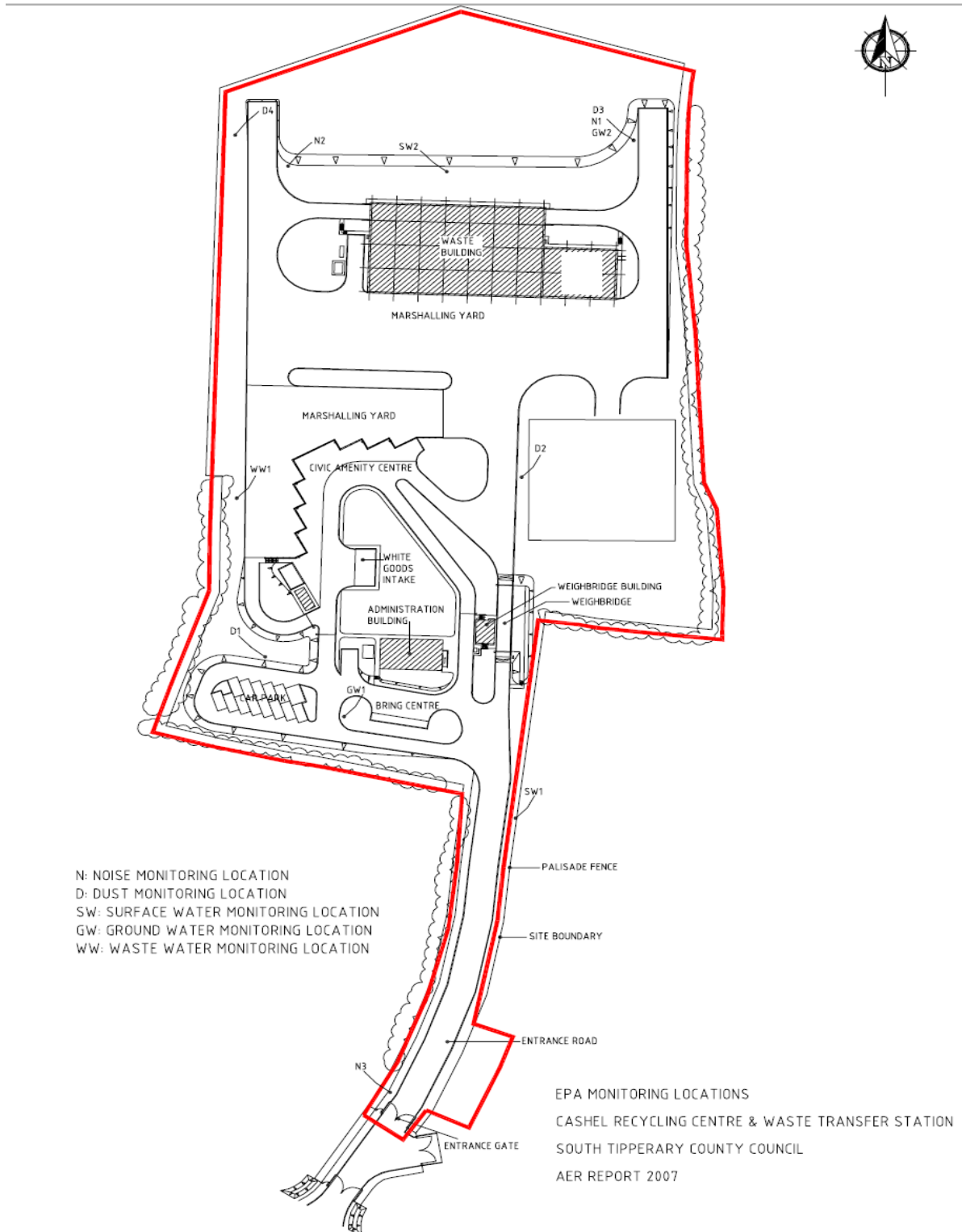


Figure 3.1: Monitoring Locations

3.2 Noise Monitoring

Condition 9 and Schedule D.3.1 of the licence require the licensee to conduct annual monitoring on noise emissions. A full noise survey was carried out on the 18th July. A summary of the results can be seen in Table 3.2 below. A full copy of the results of these tests is included in Appendix 1.

Table 3.2 Noise Monitoring Results Summary

Monitoring Point	L(A)_{EQ}	Comments
N1	54	Main source of noise at this location were trucks and cars driving into and out of the site, reverse beeping, trucks idling, forklift in operation and the revving of lorries as they tipped their loads. Interference included birds singing, dogs barking, and traffic movements in the background.
N2	58	Main noise source at this location was a lorry idling close to the monitoring point, a forklift loading a lorry at the other side of the building, reverse beeping, tapping/banging noise from main building, whistling from an alarm and screeching from main building. Interferences included traffic movements on nearby road and birds singing.
N3	59	Main source of noise was produced by trucks idling, cars and trucks driving to and from the site and reverse beeping sirens. Interference included people talking, breeze blowing in the trees, traffic movements on nearby road (more than 100 vehicles), birds singing, plane flying overhead, tractor in operation, a digger and a dog barking.

3.3 Surface water Monitoring

Condition 9 and Schedule D.4 of the licence require the licensee to conduct surface water monitoring at points prior to discharge to soakaway at locations to be agreed with the Agency on a quarterly basis. The results can be seen in Table 3.3 and Table 3.4 below. All the results are very low.

Table 3.3 SW1 Surface Water Monitoring Results

Surface Water 1	Emission Limit	Q1 2008	Q2 2008	Q3 2008	Q4 2008	Median
BOD (mg/l)	10	3.84	N/A	N/A	N/A	
pH	6.0 – 9.0	8.06	N/A	N/A	N/A	8.06
S.Solids (mg/l)	25	21	N/A	N/A	N/A	21
Mineral Oil (mg/l)	5	<0.05	N/A	N/A	N/A	

Table 3.4 SW2 Surface Water Monitoring Results

Surface Water 2	Emission Limit	Q1 2008	Q2 2008	Q3 2008	Q4 2008	Median
BOD (mg/l)	10	2.17	N/A	N/A	N/A	
pH	6.0 – 9.0	7.44	N/A	N/A	N/A	7.44
S.Solids (mg/l)	25	15	N/A	N/A	N/A	15
Mineral Oil (mg/l)	5	<0.05	N/A	N/A	N/A	

3.4 Wastewater Monitoring

Condition 9 and Schedule D.5 of the licence require the licensee to conduct waste water monitoring at a point prior to discharge to sewer at a location to be agreed with the Agency on a quarterly basis. The results can be seen in Table 3.5 below.

Table 3.5 Waste Water Monitoring Results

Wastewater	Emission Limit	Q1 2008	Q2 2008	Q3 2008	Q4 2008	Median
pH	6.0 - 10.0	7.56	7.03	7.29	7.47	7.38
Temperature (C)	25	13.1	11	14.4	8.4	12.05
BOD (mg/l)	500	15.5	26	10.92	260	20.75
Suspended Solids (mg/l)	500	22	46	145	136	91
Fats, Oils, Grease (mg/l)	100	3	1	<1	<1	2
Ammoniacial Nitrogen (mg/l)	50	2.67	2.66	1.05	45.5	2.665

3.5 Groundwater Monitoring

Condition 9 and Schedule D.6 of the licence require the licensee to conduct groundwater monitoring at two groundwater wells located onsite on a quarterly basis. The results can be seen in Table 3.6 and Table 3.7 below.

Table 3.6 GW1 Groundwater Monitoring Results

Ground Water 1	Emission Limit	Q1 2008	Q2 2008	Q3 2008	Q4 2008	Median
Visual Inspection/Odour	No abnormal	No Odour detected	No Odour detected	No Odour detected	No Odour detected	
Groundwater Level (mts)		6.5	12.4	10.29	12.6	11.345
Conductivity (us/cm)	1500	983	983	958	929	970.5
pH	6.0 – 9.0	7.38	7.04	7.25	7.9	10.35
Temperature (C)	25	10.3	10.2	10.4	10.7	10.35
Mineral Oil (mg/l)	5	<0.05	<0.05	<0.05	<50	#NUM!

Table 3.7 GW2 Groundwater Monitoring Results

Ground Water 2	Emission Limit	Q1 2008	Q2 2008	Q3 2008	Q4 2008	Median
Visual Inspection/Odour	No abnormal	No Odour detected	No Odour detected	No Odour detected	No Odour detected	
Groundwater Level (mts)		3.44	10.34	7.55	10.7	8.945
Conductivity (us/cm)	1500	700	701	664	711	700.5
pH	6.0 – 9.0	7.28	7	7.06	7.22	7.14
Temperature (C)	25	10.1	10.1	10.4	10.6	10.25
Mineral Oil (mg/l)	5	<0.05	<0.05	<0.05	<50	#NUM!

3.6 Tank and Pipeline Testing

This is carried out every three years and is next due in 2010.

3.7 Resource and Energy Consumption

Electricity and diesel usage are shown in Tables 3.8 and 3.9 below.

Table 3.8 Electricity Use 2008

Date	Consumption in kWh
Feb 08	10760 kWh
Apr 08	11360 kWh
Jun 08	8360 kWh
Aug 08	9543 kWh
Oct 08	10727 kWh
Dec 08	11693 kWh
Average	5204 kWh per month

Table 3.9 Diesel Usage 2008

Jan 07	795
Feb 07	530
Mar 07	620
Apr 07	660
May 07	460
June 07	580
July 07	540
Aug 07	540
Sept 07	780
Oct 07	480
Nov 07	585
Dec 07	360
Average p\month	578

4 SITE DEVELOPMENT / INFRASTRUCTURAL WORKS

Site development works initiated or completed during the report period are described hereunder.

4.1

It is planned to install a concrete slab to facilitate the bulking up of items in 2009.

Installation of a conveyor loading system in the transfer station was completed in 2008.

5 ENVIRONMENTAL INCIDENTS AND COMPLAINTS

5.1 Incidents Summary

Condition 12.3 of the waste licence requires that the licensee shall make written records of environmental incidents. No incidents were recorded during this reporting period

5.2. Complaints Summary

There were no complaints received during the reporting period.

5.3 Review of Nuisance Controls.

All nuisance control systems are monitored weekly to ensure that they are working effectively. The findings of these inspections are recorded on Nuisance Check Sheets, which are held on record in the facility. Environmental nuisances include:

1. Litter
2. Vermin
3. Dust

5.3.1 Litter Control

There are regular checks for litter onsite.

5.3.2 Vermin & Insects Control

The initial vermin control system on site is prompt waste disposal and reducing access to material. Additional vermin control work, is contracted to Pest Patrol (Pest control and Environmental Services). They use bait boxes the following systems to control vermin on site.

Pest Patrol carries out eight to ten site inspections annually to ensure that the site is free of vermin. Waller's Lot is not considered to have a vermin problem. The findings of these inspections are recorded and are held on record in the facility.

5.3.3 Dust Control

Dust control on-site is controlled using the following systems:

1. Reduced vehicle speed on site to control dust rising
2. Roads sprayed with water to keep dust down, done in dry weather

No complaints were received at the as regards dust raised by operational activities.

6 ENVIRONMENTAL MANAGEMENT SYSTEM

6.1 SUMMARY OF PROCEDURES ASSOCIATED WITH THE FACILITY

Documented procedures governing the operation of the facility are outlined below. Complete copies of all procedures are included in the facility's EMS.

Procedure Title Summary	Emergency Response Procedure The purpose of this procedure is to propose appropriate actions to ensure the safety & health of all site personnel and visitors, minimise damage to property and risk to the environment This procedure describes the action to be used in the event of an emergency where an emergency can be described as but is not limited to any of the following incidences: <ul style="list-style-type: none">• significant spillage• major fire/explosion• flooding / structural damage• major injury or dangerous occurrence
Revision Date & No.	November 2007 Rev. 2
Procedure Title Summary	Corrective Action Procedure To ensure that the appropriate corrective action is taken in the event of an incident on-site, where an incident can be defined as: <ul style="list-style-type: none">• an emergency• any emission which does not comply with the requirements of this licence (W0200-01)• any trigger level specified in this licence which is attained or exceeded• any indication that environmental pollution has, or may have, taken place
Revision Date & No.	February 2007 Rev. 1
Procedure Title Summary	Awareness and Training Procedure To ensure that training needs are identified and appropriate training is provided for facility personnel.
Revision Date & No.	February 2007 Rev. 1
Procedure Title Summary	On-Site Communication Procedure To ensure that members of the public can access, at the facility, information on the sites environmental performance, in compliance with Condition 2.4 of the waste licence
Revision Date & No.	February 2007 Rev. 1
Procedure Title Summary	External Communication Procedure To ensure that all communications regarding the facility are correctly directed to be addressed by the correct personnel.
Revision Date & No.	July 2007 Rev. 2

Procedure Title **Complaints Procedure**
Summary To ensure that all complaints that activities are creating a nuisance are recorded and dealt with, in compliance with Condition 11.4 of the waste licence
Revision Date & No. February 2007 Rev. 1

Procedure Title **Waste Characterisation and Testing Procedure**
Summary To provide a system of checking to ensure that waste collected at Waller's Lot complies with Schedule A of the Waste Licence.
Revision Date & No. February 2007 Rev. 1

Procedure Title **Waste Acceptance Procedure**
Summary To formalise the system of receiving and recording the delivery and acceptance of waste.
Revision Date & No. November 2007 Rev. 2

Procedure Title **Vehicle Movement Procedure**
Summary Ensure that all vehicles using the site enter, travel and operate safely
Revision Date & No. November 2007 Rev. 2

Procedure Title **Waste Quarantine Procedure**
Summary To ensure that quarantine waste is stored and processed correctly
Revision Date & No. February 2007 Rev. 1

Procedure Title **Waste Rejection Procedure**
Summary To ensure that rejected waste is dealt with in a safe manner and that the appropriate notification is made
Revision Date & No. February 2007 Rev. 1

Procedure Title **Metal Recovery – Waste Acceptance Procedure**
Summary To formalise the system of receiving, recording the delivery and acceptance of waste metal for recovery at Waller's Lot.
Revision Date & No. February 2007 Rev. 1

Procedure Title **WEEE Acceptance (incl Fridges and freezers) Procedure**
Summary To formalise the system of receiving, recording the delivery and acceptance of white goods for recovery at Waller's Lot.
Revision Date & No. November 2007 Rev. 2

Procedure Title **Recyclable Waste - Acceptance Procedure**
Summary To formalise the system of receiving, recording the delivery and acceptance of recyclable materials for recovery at Waller's Lot.
Revision Date & No. February 2007 Rev. 1

Procedure Title **Environmental Monitoring Procedure**
Summary To formalise the system of environmental monitoring on-site for:

- Surfacewater
- Groundwater
- Wastewater
- Dust

Revision Date & No. • Noise
November 2007 Rev.2

Procedure Title **Site Inspection Procedure**
Summary To ensure that the site is inspected on a weekly basis to ensure that there
is nothing of note occurring on site that is being missed.
Revision Date & No. February 2007 Rev. 1

Procedure Title **Nuisance Inspection Procedure**
Summary To ensure that the site is inspected on a weekly basis to ensure that there
is no nuisance being caused by dust, litter and odours.
Revision Date & No. February 2007 Rev. 1

Procedure Title **Self Compacting Trailer Operating Procedure**
Summary To ensure the safe operation of the waste compacting trailer
Revision Date & No. January 2008 Rev. 1

Procedure Title **Waste Conveyor Operation Procedure**
Summary To ensure the safe operation of the waste conveyor
Revision Date & No. January 2008 Rev. 1

6.2 OBJECTIVES AND TARTGETS

Objective 1	Finish off any remaining construction work	
Target	Complete any remaining construction work	
	Tasks	Timeframe
	1. Complete all items on snag list (Completed)	April 2008
	2. Receive sign over of site from contractor to STCC (Completed)	June 2008
Responsibility	Facility Manager & RE	
Resources		

Objective 2	Commence use of waste transfer facility	
Target	Waste Transfer Facility in Full Use	
	Task	Timeframe
	1. Complete any outstanding construction work	Aug 2008
	2. Install any additional safety operational systems identified.	(Completed)
Responsibility	Facility manager & RE	
Resources		

Objective 3	Launch Advertising campaign	
Target	I	
	Tasks	Timeframe
	1. Advertise facilities in local paper (Completed)	March 2008
	2. Official opening (Completed)	June 2008
Responsibility	Facility manager & PAO	
Resources		

Objective 4.	Reach target use by public of XXX tonnes/euros per week	
Target		
	Tasks	Timeframe
	1. €2000.00 per week (Target reached)	July 2008
Responsibility		
Resources		

Objective 5	Review all aspects of Health and Safety in relation to the facility	
Target	To carry out a review in relation to all aspects of health and safety concerning this facility	
	Tasks	Timeframe
	1. Site specific safety statement to be completed (Completed)	March2008
	2. Carry out any recommendations for reduction of risk outlined in Safety Statement. (Completed)	February 2008
	3. Receive safety file from contractor (Completed)	February 2008
Responsibility	Facility manager & RE	
Resources		

Objective 6	Improve energy efficiency on site	
Target	In compliance with Condition 8.1 STCC will carry out an audit of the energy efficiency of the site to identify opportunities for energy use reduction and better resource use.	
	Tasks	Timeframe
	1. Carry out energy audit in accordance with guidance published by the Agency – ‘Guidance note on energy efficiency auditing’. (Completed)	August 2008
	2. Implement audit findings. (Completed)	January 2008
	3. Install a wind turbine	July 2009
	4. Install a rain water collection system	July 2009
Responsibility	Facility manager & E.E	
Resources		

Objective 7	Improve site security	
Target		
	Tasks	Timeframe
	1. Maintain fence 2. Reduce scavengers / trespassers	Ongoing
Responsibility	Facility manager	
Resources		

Objective 8	Implementation of a management and reporting system	
Target	In compliance with Condition 2.4 STCC will maintain a system whereby all environmental information is available to members of the public during opening hours	
	Tasks	Timeframe
	1. Review and update the EMS 2008	February 2008
	2. Review and update the schedule of objectives and targets 2008	
	3. Implement reviewed EMP	March 2008
	4. Review and update the Corrective Action Procedure	
	5. Review and update the Awareness and Training Programme	
	6. Prepare an AER 2008 All Completed	March 2009
	7. Prepare AER 2008 (Completed)	
Responsibility	Facility Manager	
Resources		

Objective 9	Expand the range of products accepted for recycling	
Target	Expand the range of products accepted	
	Tasks	Timeframe
	1. Toner and printer cartridges (Completed)	March 2008
	2. Polystyrene	Sept 2009
	3. Tyres (Completed)	March 2008
Responsibility	Facility manager	
Resources		

Objective 10	Site Inspections	
Target	To ensure that all appropriate site inspections are carried out and documented as per the Licence requirements	
	Tasks	Timeframe
	1. Training of Staff in Inspection procedures (ongoing)	March 2008
	2. Maintaining Inspection records (ongoing)	March 2008
Responsibility	Facility manager	
Resources		

Objective 11	Staff Training	
Target	To ensure that all site personnel are appropriately qualified for the position they hold on site.	
	Tasks	Timeframe
	1. All site personnel should be appropriately qualified and experienced for the position they hold on site	March 2008
	2. Implement regular in house training for on site personnel. (ongoing)	March 2008
	3. All site personnel to complete FAS Waste Management Course	December 2009
Responsibility	Facility manager	
Resources		

Objective 12	Environmental Education	
Target	To encourage all interested parties to visit the site and learn about recycling	
	Tasks	Timeframe
	1. Use building to run courses regarding all forms of recycling	March 2008
	2. Encourage school visits (ongoing)	March 2008
	3. Continue Landscaping programme	ongoing
Responsibility	Facility manager, Environmental Engineer and Public Awareness Officer	
Resources		

Objective 13	Reduction in Resource Usage	
Target	Reduce usage of water and power on site	
	Tasks	Timeframe
	1. Energy Audit carried out (Completed)	September 2008
	2. Implement recommendations of Energy Audit. (Completed)	December 2008
	See Objective 6	
Responsibility	Facility manager	
Resources		

7 FACILITY REOURCES

7.1 Management and Staff Structure

There are six operational staff at the site: a Facility Manager, responsible for the day-to-day site activities, a deputy manager, environmental chemist, a weighbridge operator and two general operatives.

A staffing structure for site operations is presented in Figure 7.1. Their qualifications and responsibilities are outlined below:

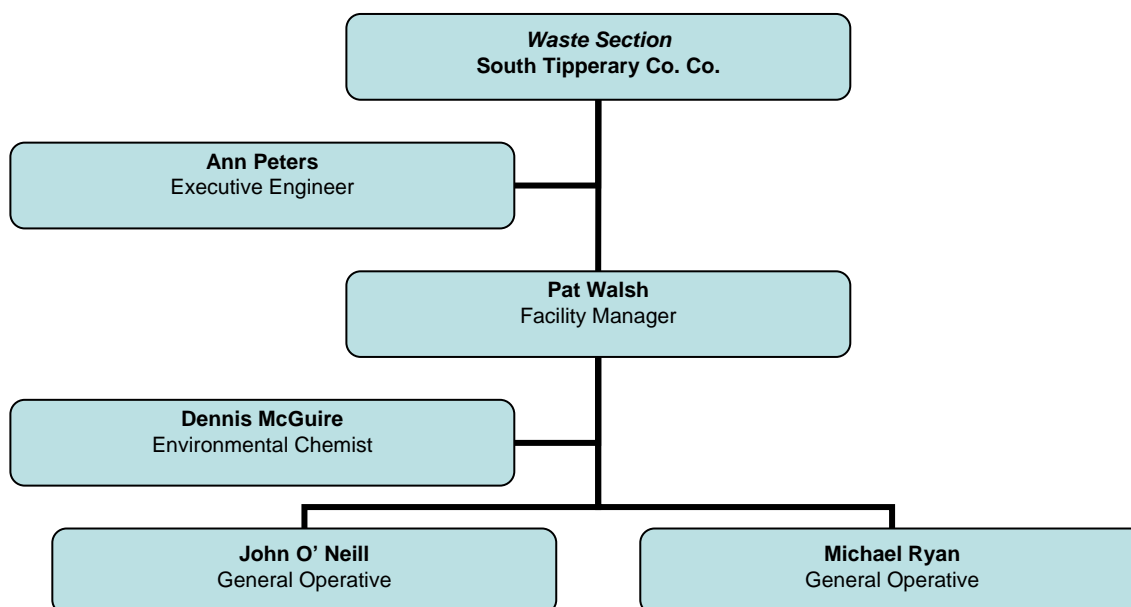


Figure 7.1: Management Structure

Facility Manager:	<i>Pat Walsh</i>
Qualifications:	FAS Waste Management Training Course FAS SafePass Course
Responsibilities:	Day-to-Day Operations Waste Acceptance Environmental Protection

Executive Engineer:	<i>Anne Peters</i>
Qualifications:	B.E. (Chem.) FAS Waste Management Training Course FAS SafePass Course
Responsibilities:	Oversee infrastructure development and management on site

Deputy Manager:	<i>Dennis McGuire</i>
Qualifications:	B.Sc.
Responsibilities:	Responsible for analytical analysis of monitoring on site

Deputy Manager:	<i>Pat O' Dwyer</i>
Qualifications:	FAS Waste Management Training Course FAS SafePass Course
Responsibilities:	Deputy for the Facility Manager, has the same responsibilities <ul style="list-style-type: none"> • Day-to-day operations • Waste acceptance • Environmental protection

General Operators	John O' Neill and Michael Ryan
Qualifications:	In –house Training <ul style="list-style-type: none"> • Weighbridge operation • Telescopic handler • Safe Pass • Manual handling • Instruction on the implication of the waste licence on site staff
Responsibilities:	Weighing Waste Acceptance Records Cash Duty General house keeping

Staff will be present on site during operational hours to supervise the waste disposal, deal with any emergency that arises and to prevent unauthorised entry into the site. The Facility Manager, or appointed deputy, must be on site during opening hours.

The primary goal of all training is to ensure that there is awareness at all levels of:

- the importance of compliance with conditions of the licence
- the potential environmental effects of work activities
- individual roles and responsibilities in achieving compliance with the waste licence
- the environmental benefits of improved performance
- the Health, Safety & Welfare at Work Act.

7.1.1 Training of Personnel

It will be the responsibility of the Manager to ensure that all staff receives training in relevant areas/tasks, including:

- instruction and operation of the machinery
- operation of the weighbridge and computer system
- training for specific functions

The Manager shall also ensure that all staff receives general training, including:

- instruction in manual handling

- the use of fire extinguishers
- FAS SafePass Course
- First Aid training

It is also the responsibility of the Manager to ensure that site staff are aware of the terms of the waste licence at the facility and the responsibility of each staff member to maintain specific terms of the waste licence. It is the responsibility of the facility manager to ensure that each staff member is aware of his or her specific function.

The Health and Safety Officer makes regular visits to the site, to promote awareness of safety issues and to audit the site. Any suggested improvements are implemented as soon as possible.

7.1.2 Records for the Training and Awareness Programme

- A training records file is kept at the site office
- All relevant operational procedures and documentation relevant to the licence shall be kept at the facility office and updated regularly
- All staff shall be made aware of the existence of such documents.

7.2 Financial Provisions

The county council have the funds available to them to complete the aftercare and restoration of the site in the event of the site closure.

The aftercare and restoration plan was submitted to the Agency in attachment G.1 of the Waste Licence application.

South Tipperary County Council
Cashel Civic Amenity and Waste Transfer Station
Waller's Lot, Cashel, County Tipperary

Annual Environmental Noise Survey

Report Date:

18th July 2008

EURO environmental services

Unit 35A, Boyne Business Park, Drogheda, Co Louth

Report No. 4190/M03

1.0 Introduction

EURO environmental services were commissioned by Louise Ryan of South Tipperary County Council to conduct an environmental noise survey at the Cashel Civic Amenity and Waste Transfer Station, Waller's Lot, Cashel, Co. Tipperary. The noise survey was carried out on three pre-determined perimeter-monitoring points on the 8th July 2008 by Shane Mc Meel of EURO environmental services as per requirement of Schedule D.3 of Waste Licence No. W0200-01.

2.0 Duration and Measurements of Surveying

The survey was carried out between 13:50 to 15:25 on Tuesday the 8th of July 2008. The following measurements were carried out at each site:

- Daytime Broadband measurements $L(A)_{eq}$, $L(A)_{10}$, $L(A)_{90}$, $L(A)_{50}$, $L(A)_1$ and $L(A)_{99}$ over a 30 minute period.
- Daytime 1/3 Octave Band measurements over a 30 minute period in the range 25Hz to 16kHz.

3.0 Weather Conditions

Weather conditions were dry, warm and sunny with a slight breeze. Temperatures ranged between 16–18 °C during the monitoring.

4.0 Location of Monitoring Points

N1 was located on hard ground along the north eastern corner of the site.

N2 was located on hard ground along the north western corner of the site.

N3 was located on hard ground at the entrance to the site, adjacent to residential dwelling and approximately 25m from the main Cashel Road.

5.0 Activities on Site

Activities on site continued as normal during the daytime survey. Vehicles entered and left the site, waste being unloaded in the recycling area and waste being moved into the recycling shed.

6.0 Methodology

The noise survey was carried out in accordance with ISO 1996/1/2/3 – Acoustics – Description and Measurement of Environmental Noise and The Environmental Noise Survey Guidance Document issued by the EPA.

Reference was also made to the guidance note issued by the Environmental Protection Agency for the assessment of noise from licensed facilities.

7.0 Equipment

The equipment used was a Bruel & Kjaer 2250 serial No. 2463166 integrating sound pressure meter, with selective 1:1 or 1:3 octave band measurements.

The meter was fixed to a tripod 1.3 meters above ground level and the microphone was protected using a windshield. The microphone cartridge type was BK4189, serial number 2457949 with open circuit sensitivity level of 53.2 mV per Pa.

8.0 Calibration

Calibration was carried out on site using an acoustic calibrator at 94dBA. The meter was calibrated before and after the monitoring round.

9.0 Day Time Measurements

Monitoring Point	Location	Date/Time	Sampling Interval minutes	L(A)eq	L(A) ₁₀	L(A) ₉₀	Comments
N1	North eastern corner	08/07/2008 13:50	30	54	48	42	Main sources of noise at this location were trucks and cars driving into and out of the site, reverse beeping, trucks idling, forklift in operation and revving of lorries as they tipped their loads. Interference included birds singing, dogs barking and traffic movements in background.
N2	North western corner	08/07/2008 14:22	30	58	60	57	Main noise source at this location was a lorry idling close to monitoring point, forklift loading lorry at the other side of building, reverse beeping, tapping/banging noise from main building, whistling from an alarm and screeching from main building. Interferences included traffic movements on nearby road and birds singing.
N3	At entrance to site, adjacent to residential dwelling and main Cashel Rd.	08/07/2008 14:55	30	59	60	47	Main source of noise was produced by trucks idling, cars and trucks driving to and from site and reverse beeping sirens. Interference included people talking, breeze blowing in the trees, traffic movements on nearby road (more than 100 vehicles), birds singing, plane flying overhead, tractor in operation, digger and a dog barking.

10.0 Third Octave Noise Measurements

Third octave noise monitoring results are attached in the appendix and are used to identify prominent tonal components in noise. Tonal noise components were detected at N1 at frequencies of 20Hz (61 dB) and 25 Hz (64dB), N2 at a frequency of 63 Hz (72 dB). These tonal noise components may be attributable to plant operating in close vicinity to these monitoring locations.

There were no tonal noise components identified at monitoring location N3.

11.0 Interference

Traffic had an influence on monitoring location N3 which was located close to the main Cashel Rd and the N8. 87 Cars and 13 HGV's passed while the monitoring was being conducted at N3.

12.0 Summary and Conclusions

Noise levels were determined at three monitoring points around the Cashel Civic Amenity and Waste Transfer site. The EPA recommend a day time noise limit of 55 dB(A).

Monitoring locations N2 and N3 were above the 55 dB(A) limit, with reading of 58 dB(A) and 59 dB(A) respectively. Elevated noise levels may be due to traffic movements close to these monitoring locations. Monitoring point N1 noise levels were within the limits with a value of 54 dB(A).

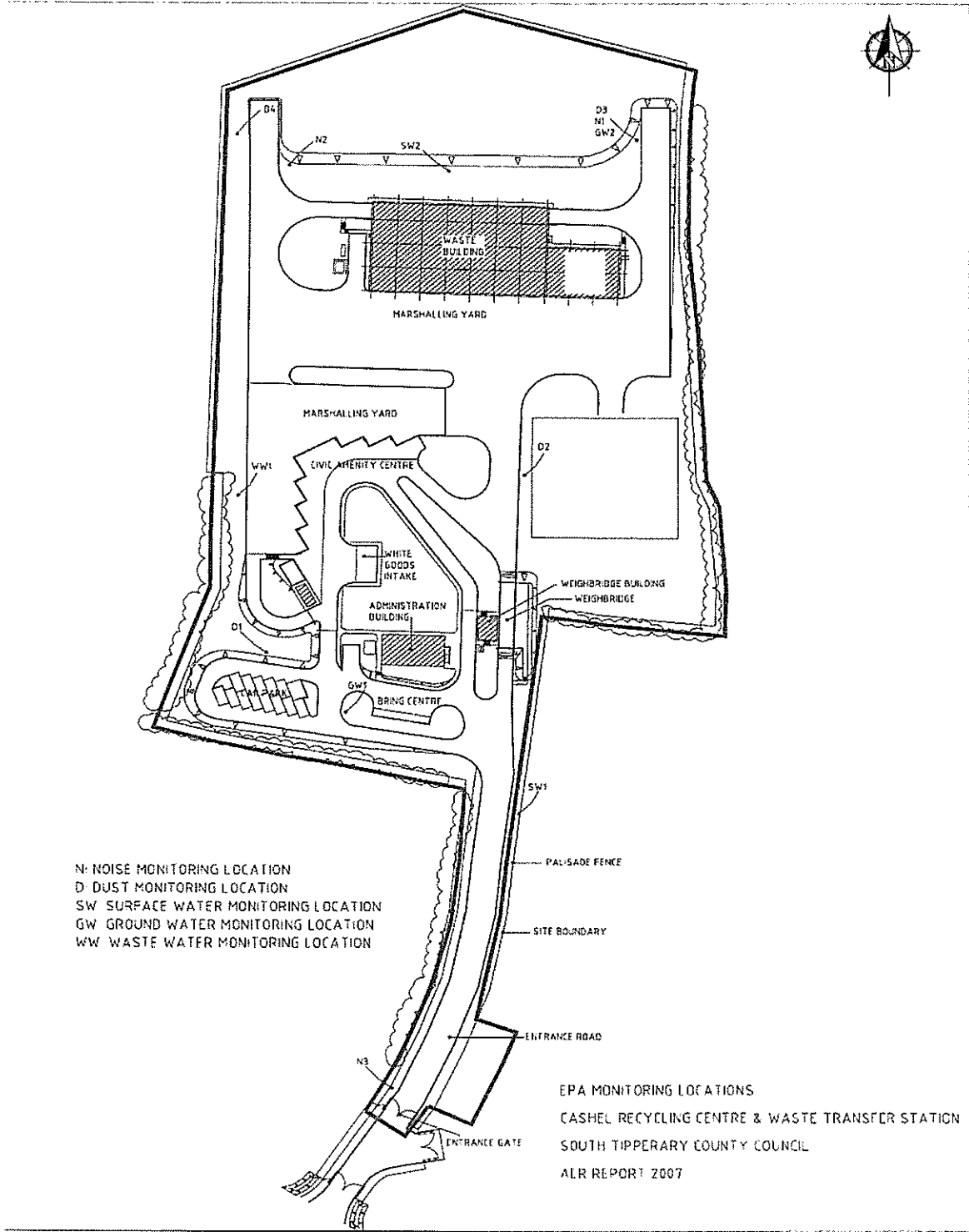


Aadil Khan
Environmental Technical Manager



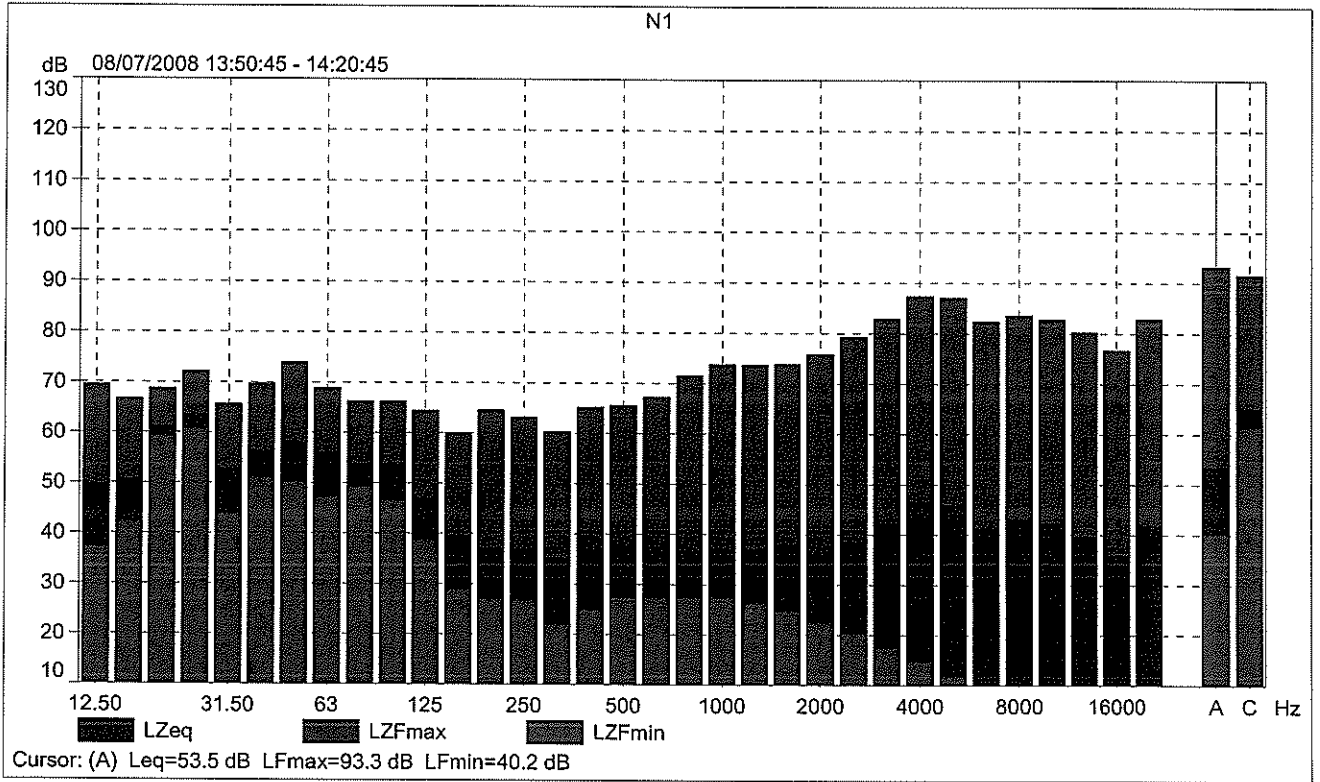
Victor Olmos
Environmental Technician

18th July 2008



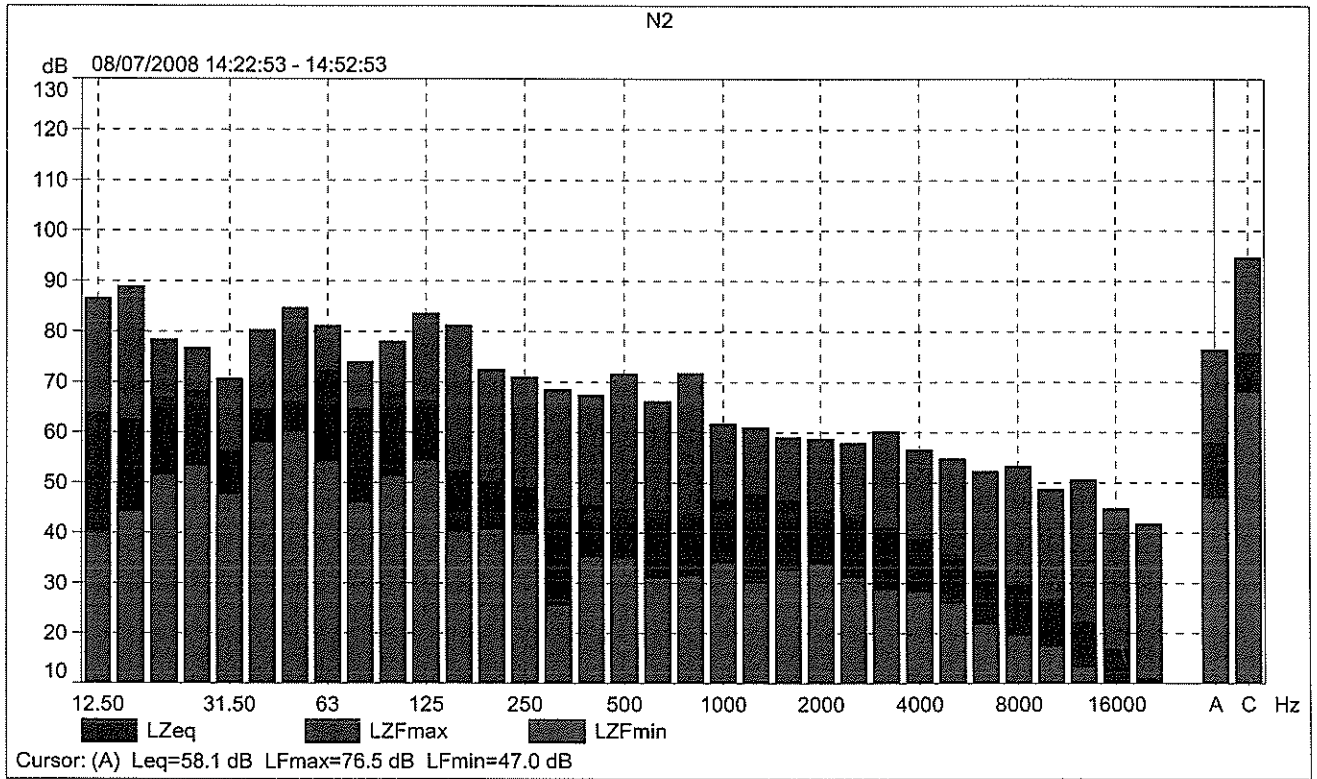
N1

	Start time	End time	Overload [%]	LAFmax [dB]	LAFmin [dB]	LAeq [dB]	LAF10 [dB]	LAF90 [dB]	LCpeak [dB]
Value			---	93.3	40.2	53.5	48.1	41.6	124.5
Time	13:50:45	14:20:45							
Date	08/07/2008	08/07/2008							



N2

	Start time	End time	Overload [%]	LAFmax [dB]	LAFmin [dB]	LAeq [dB]	LAF10 [dB]	LAF90 [dB]	LCpeak [dB]
Value			---	76.5	47.0	58.1	59.5	56.9	104.6
Time	14:22:53	14:52:53							
Date	08/07/2008	08/07/2008							



N3

	Start time	End time	Overload [%]	LAFmax [dB]	LAFmin [dB]	LAeq [dB]	LAF10 [dB]	LAF90 [dB]	LCpeak [dB]
Value			---	81.6	35.2	58.9	60.3	46.7	103.3
Time	14:55:36	15:25:36							
Date	08/07/2008	08/07/2008							

