ANNUAL ENVIRONMENTAL REPORT

Year End December 2011

Dunmore Landfill & Recycling Centre

Dunmore
County Kilkenny

Waste Licence Register Number W0030-02

Kilkenny County Council
County Hall
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Kilkenny

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1. Introduction

Kilkenny County Council's Landfill Site at Dunmore received its first Waste Licence (30/1) from the Environmental Protection Agency on the 23rd November 1999. In March 2001 an application was made to review this Licence, to incorporate an enhanced entrance, better infrastructural features and a further four cells. The EPA granted the review of the licence in May 2002 register no. 30/2. The reporting period for this Annual Environmental Report is from 01/01/11 to the 31/12/11.

Dunmore landfill site reached its full capacity in mid March 2010 and ceased operation. Capping works commenced in September 2010 and were completed by December 2010 with the exception of top soiling and seeding which were completed in March/ April 2011.

2. Waste Acceptance

2.1 Waste Activities

Since the landfill closure waste from households and small commercial businesses is presented at the Recycling & Waste Disposal Centre where it is packed into 35cy skips and then taken off site by Greenstar to their waste facility in Kilkenny City.

Prior to the 1st April 2011 all waste was taken off site as MSW (Municipal Solid Waste) and deposited at Greenstars facility where it was then sent to landfill. This waste was deposited into any of three compactor units on site in Dunmore. However from mid February onwards one of the compactor units has been set aside for depositing dry bulk or C&I waste i.e. building material, furniture, hard plastics, garden waste etc, to reduce the amount going to landfill. This material is now being sent from Dunmore via Greenstar to the Millennium Park MRF in Dublin.

2.2 Recycling

Many recycling streams are catered for at Dunmore such as:

- Mixed Paper
- Cardboard
- Glass (Brown, Green, Clear)
- Batteries (Primary, Lead Acid, fence batteries)
- White Goods
- Brown Goods
- Household Hazardous waste
- Waste Oils/filters
- Steel/Aluminium Cans
- Mixed Metal
- Textiles
- Tetra Pack
- Plastics
- Reading Books/Magazines

All the above recycling streams with the exception of glass & aluminium cans (Glasco) and WEEE (WEEE Ireland) are taken off site by Greenstar who are contracted under a regional contract to service the facility.

2.3 Quantity and Composition

The quantities of waste accepted at Dunmore in 2011 and the categorised breakdown can be found in Appendix A. The recyclable waste removed from the site i.e. white/brown goods, bottles (green, brown and clear), metal, paper/cardboard, tetra and mixed plastic are also listed.

2.4 Capacity

Waste is deposited in one of three 35cy compactor skips depending on the waste type i.e. MSW (wet waste) or C&I (dry bulk waste). These skips are exchanged approximately every 2nd day when they reach a capacity of 6-9 tonne.

2.5 Deposition Methods

Waste presented at Dunmore Recycling and waste disposal centre for disposal is handled in the following ways: -

Waste brought to the site by householders, contractors, or small businesses is placed by them in the compactor skips located in the recycling and waste disposal centre. When this container is full, it is collected, weighed and transported by Greenstar to their facility in Kilkenny City for pre-treatment and disposal. All recyclables brought to the site are directed to the appropriate location and are placed in the appropriate receptacle for temporary storage on site. As soon as these receptacles are full, site staff arrange for the removal of the material to an authorised materials recycling centre. Greenstar (paper, plastic, cardboard, metal, tetra pak). KMK (all WEEE on behalf of WEEE Ireland). Enva (Hazardous, oils and oil filters).

3. Environmental Monitoring

3.1 Landfill Gas

Landfill gas monitoring and migration results are submitted to the Agency biannually. Results for 2011 are available in Appendix B. All gas wells on the site are harnessed and the gas is burned off thus reducing the landfills contribution to ozone depleting gases by 90%, and also reduces landfill gas odours.

3.2 Surface Water, Groundwater and Leachate

Surface Water: **-** Surface water is analysed quarterly and the results are submitted to the Agency. A sample of the results for surface water monitoring is available in Appendix C

Groundwater: **-** Groundwater well quality is tested quarterly, and results are submitted to the Agency as set out in condition 9.1 and schedule F of the licence. Results throughout the year have shown no adverse effects to the ground water as a result of landfilling in the area, and a sample is available in Appendix C.

Leachate: - The composition of leachate is tested at leachate manholes and holding lagoons quarterly and results are submitted to the Agency as set out in condition 9.1 and schedule F of the licence. A sample of the results is listed in Appendix C.

3.3 Dust monitoring

Dust Monitoring: **-** Dust Monitoring takes place three times a year and the results are submitted to the Agency. No exceedences of the permitted level of 350mg/m2/day, from Schedule C of the waste licence conditions, were recorded. The results are shown in Appendix C:

4. Site Infrastructure and Development

4.1 Resource and Energy Consumption

4.1.1 Diesel Fuel: -The amount of fuel consumed on site in 2011 was approximately 160 litres, which has been used since the purchase of a diesel forklift in July 2011.

4.1.2 Electricity: -. Electricity is used in the following buildings; weighbridge office, main offices and recycling centre office. It is also used to operate the weighbridge computer, pumps, lights, and heating, CCTV cameras etc. A three phase supply was installed to meet the demands of the revised licence and supply the recycling centre,

gas flare, pumps, SCADA system and extended office.

4.2 Development Works

4.2.1. Development Works over the Reporting Period

Over the reporting preiod the following development works have been carried out at the facility:

- Final top soiling and seeding of cells 13 &14 (March 2011).
- Installation of further signage in Recycling and Waste Disposal Centre.
- Improved layout and use of space in the Recycling & Waste Disposal Centre.
- Updated traffic management measures on site.
- Continued review of Health & Safety on site.
- Speed ramp installed on road leading to Recycling & Waste Disposal Centre.
- Site boundary reduced to facilitate leasing of land to the GAA.

4.2.2 Proposed Development Works

It is proposed to carry out the following developments at Dunmore in the year 2012.

- Security fencing to be installed around recycling centre.
- Installation of a third waste compactor receptacle.
- Signage to be updated at the site entrance.
- Remediation work to be carried out on the lagoon netting.
- Concrete bays to be utilised for green waste segregation and will require new signage and traffic management.

Details of the status of the objectives and targets can be found in Appendix E.

4.3 Tank and Pipeline Integrity Tests

In respect of Condition 5.12.2, an integrity test on the leachate-holding lagoon and pipeline outside the cells was carried out.

'Geomembrane Testing Services Limited', carried out an integrity test on the leachate holding lagoon which was submitted to the Agency in 2008. Air pressure and high frequency spark tests were carried out over the lined area of the lagoon. It was found that 'the geomembrane liner was free of defects at the time of final inspection'.

Testing was due to commence again in 2011, however due to budget constraints this will now be carried out in early 2012.

4.4 Restoration Plan and Aftercare Plan

The final ground level contours of the landfill and the amended site boundary are shown on Drawing No.LW11-112-01-001. This is available in appendix D.

All leachate collection and control systems shall be maintained.

Upon completion of the landfill activities the following restoration/reinstatement works was carried out: -

1. Weighbridge and offices were be maintained as required.
2. Any litter from perimeter hedging, ditches and surrounding land was removed.
3. All boundary fences on the site are secured. Hedge rows were retained and renewed as necessary.
4. All unsurfaced roadways with the exception of the access to the leachate lagoon, recirculation tanks, perimeter access to sampling points and civic amenity site have been removed.
5. The boundary at the access road (from the Bleech Road) has been secured, all unsurfaced roadway was removed apart from access to the lagoon and sampling points.

In the long term and subject to Waste Licence conditions and monitoring results, any appurtenances no longer required for the monitoring or maintenance programmes shall be removed off site. The localised areas affected by these works will be restored to the condition of the surrounding ground.

The leased area of land (O'Neill's pit) will be returned to the owner for agricultural grazing use, all fence boundaries restored and its maintenance, apart from monitoring points and gas wells, will no longer be the responsibility of Kilkenny County Council.

The remaining areas of land subject to agreement with the agency will be woodland/grassland after the restoration and landscaping plan is complete and specialist forestry management firms under contract with Kilkenny County Council will manage these areas.

4.5 Site Survey

The site topographical survey is completed at least once a year. This survey was submitted to the Agency previously under condition 8.8.1 (ref. LC-41-MG) and will be submitted annually thereafter. Last topographical (Revision I) survey was carried out in December 2010 and has been sent to the Agency.
Since the completion of full capping works it is envisaged that topography and slope stability will not undergo any significant change.

5. Procedures

5.1 Emergency Response Procedure

Following an assessment of risk at the site in Dunmore, as part of our ongoing safety audits, procedures were put in place to deal with any emergency that may arise at the site.
The main risks identified at the site are explosion, fire, oil/leachate spillage and injury to persons.

Emergency Response Procedure

Emergency	Response	Notify
Explosion	1. Call-out Fire Brigade 2. Evacuate Site	Engineer in Charge Chief Fire Officer EPA
Fire-Vehicle	Control with Vehicle or site fire extinguishers. If unsafe or out of control, call out Fire Brigade	Machinery Yard Engineer Vehicle Owner Engineer in Charge
Fire-Site	1. Cover with Inert Material. 2. If unsafe, or out of control evacuate site and call-out Fire Brigade.	Engineer in charge. EPA
Oil Spillage	Contain with oil sorbent material	Engineer in charge. EPA Southern Regional Fishery Board
Leachate Spillage	Contain with clay bunds, Dam watercourses, if necessary. Suction up spillage with Vacuum tanker or leachate Tanker.	Engineer in charge. EPA Southern Regional Fishery Board
Injury to Persons	1. Call Ambulance 2. Apply First Aid	Engineer in charge.

Emergency Response Numbers: -

Gardai Station **Dominic St** **Kilkenny.**	**(056) 7722222**
Fire Station **Gaol Rd** **Kilkenny.**	**(056) 7794400**
Ambulance	**(056) 7751133**
Environmental Protection Agency – OEE	**(053) 9160600** **LoCall 1890 335599**
Southern Regional Fisheries Board	**(052) 80055**

6. Nuisance Control

6.1 Vermin Control: - 'Pestkill-Pest Control Services' visit the site on a monthly basis, to place bait for vermin control at the site. There are 12 no. specific and labelled locations at and surrounding the site where bait is placed in custom made boxes. Pestkill inspects these monitoring points monthly to see if the bait was taken or rodent activity if any are noted and bait is re-stocked if necessary. Monthly record sheets of the findings at the site are logged and kept on site..

6.2 Fly Control: - 'Pestkill-Pest Control Services' are also used if needed, for fly and wasp control in late Spring, Summer and early Autumn, and at other times if necessary.

7. Incidents and Complaints

7.1 Incident Reports

No incidents or complaints took place at Dunmore during the reporting period.

8. Staffing

8.1 Staffing Structure

Kilkenny County Council own and manage the landfill and recycling centre at Dunmore. The County Council with Philip O'Neill as Director of Service and Carol McCarthy as Senior Engineer are presently appointed as the project supervisors for design and construction phase.

The Environment Section manages the facility on behalf of Kilkenny County Council with Carol McCarty BA BAI, MIEI, as Senior Engineer of the Section.

On site Alan Rhatigan is A/Supervisor at the site. The operatives at the site also include one driver (Leachate Tanker), weighbridge operator, C.A. operator and a general operative.

The site is open Monday – Friday, 8.00 to 4.30 and on Saturday from 8.00 to 12.00. The phone numbers at the site are 056-7761999 and 056 7767848. Any queries or complaints may be made to the site or to the Environment Section in County Hall (056-7794470). A flow chart outlining the management structure is attached in Appendix G.

9. Public Information

9.1 Procedure for Public Consultation

Dunmore Landfill is established since 1989 and good communication has developed between the site staff and the local community. The site staff in a spirit of good neighbourliness promptly deals with any issues arising locally.

During the development of proposals for an extension to the landfill site at Dunmore, intensive consultation has taken place especially with the immediate neighbours of the site and with other local residents. This consultation process commenced in November 2000 and was ongoing during the development stage. Arising out of these consultations, Kilkenny County Council had set up a Community Liaison Group.

The group comprises of seven members of the local community representing the different areas in the vicinity on the landfill, two local elected representatives, Senior Executive Engineer and the facility manager. As the landfill is now due for closure the Community Liaison Group will be convened to ascertain the appropriate community projects to benefit from this.

In addition to the above, the Kilkenny Area Committee of the County Council, comprising elected members of the Kilkenny Electoral Area is briefed on the

developments at Dunmore.

The full Council are briefed on all waste management issues on a regular basis including developments at Dunmore, pricing structure, staff changes etc.

The Strategic Policy Committee on Environment (SPC 3), which comprises of council officials elected representatives and community representatives are briefed on developments at the landfill site and policy decisions are drafted as a result of the meetings.

All environmental monitoring results are held in the Dunmore Landfill, Dunmore, Co. Kilkenny and any member of the public is free to inspect them at any time during normal office hours (08:00 to 16:30 hours). Arrangements can be made to view the information at an alternative location by prior arrangement.

There is a fax and phone located at the site where queries can be made during opening hours i.e. 08:00 to 16:30, or a message can be left on the answering machine and if required will be contacted as soon as the message is received.

9.2 Complaints

A complaints register is located on site and any complaint regarding the operation of the facility is recorded and the action taken to address the complaint/observation. No complaints were received during 2011.

Appendix A

Waste & Recycling Quantities

Waste Quantities 2011

		Weights In						Weights Out		
		Domestic	Commercial	Litter & Street Sweepings		Total	Mixed Municipal Waste		Dry Bulk Waste	Total
Jan		101.68	22.34	2.24		126.26	223.77		1.04	224.81
Feb		104.94	26.46	3.46		134.86	202.34		26.34	228.68
Mar		106.60	29.80	5.20		141.60	190.49		63.81	254.3
Apr		109.98	21.00	5.42		136.40	120.21		83.23	203.44
May		104.76	27.02	8.22		140.00	158.67		74.53	233.2
Jun		101.36	28.68	2.68		132.72	131.88		90.39	222.27
Jul		105.54	20.80	4.28		130.62	140.26		96.98	237.24
Aug		103.78	33.50	3.70		140.98	151.68		58.71	210.39
Sep		86.44	21.02	4.06		111.52	132.88		74.66	207.54
Oct		93.54	16.64	5.40		115.58	107.93		86.54	194.47
Nov		94.40	21.90	4.30		120.60	129.16		86.96	216.12
Dec		87.16	16.68	5.36		109.20	117.06		81.13	198.19
Subtotal		**1200.18**	**285.84**	**54.32**		**1540.34**	**1806.33**		**824.32**	**2630.65**

The difference between IN and OUT represents the black sacks not weighed, but charged for by the bag.

Recycling Quantities 2011

	Cardboard	Paper	Plastic	Metal	Lead Acid Batteries	Alkaline Batteries	Textiles	Hazardous	Flourescent tubes	Glass	white & brown goods	Fridges	Monitors & TV's	tetra	Cooking Oil	Mineral Oil	Oil filters	Tyres	**Total**	**Total WEEE**
Jan	9.92	11.42	7.1	4.64	0	0	2.4	0.9	0	11.2	4.5	0	8.66	0.5	0	0	0	0	61.24	13.16
Feb	3.94	31.14	5.32	6.44	0.4	0	0.68	0	0.32	8.14	3.8	0	12.54	0.64	0.24	0.64	0	0	74.24	13.34
Mar	4.62	20.18	5.62	6.5	0	0	1.3	0	0	6.78	0	0.54	13.14	0.68	0	0	0	0	59.36	13.68
Apr	6.36	19.32	6.66	7	0	0	0.98	6.3	0	8.86	0.96	1	15.46	0.78	0	0	0.3	0	73.98	17.42
May	4.22	20.53	5.6	4.16	0	0	0.4	1.62	0.28	6.04	11.54	0	2.74	0.82	0	1.82	0	0	59.77	14.28
Jun	4.72	22.66	5.08	4.28	0	0	1.3	2	0	10.02	0	0.33	9.49	0.5	0	0	0	0	60.38	9.82
Jul	4.3	18.29	4.7	7.3	0	0.16	0.2	5.28	0.24	0	0	0	16.26	1	0.14	0	0	0	57.87	16.26
Aug	5.02	17.48	5.86	7.32	0	0	1.44	1.56	0	10.2	7.3	0	2.52	0.74	0	0	0	0	59.44	9.82
Sep	4.56	24.49	5.46	3.32	0	0	1.26	2.06	0	5.72	7.88	0	2.00	0.82	0.1	0	0	0	57.67	9.88
Oct	4.56	13.72	4.38	2.4	0	0.3	1.1	2.6	0	5.5	8.78	0	1.62	0.64	0	1.04	0.2	0	46.84	10.4
Nov	3.08	23.14	6.42	3.9	0	0	1.14	1.96	0.46	6.22	3.7	0	2.26	0.86	0	0	0	0	53.14	5.96
Dec	4.94	15.41	6.66	5.366	0	0.34	0.46	0.6	0	3.66	4.34	0	3.9	0.96	0	0	0	0	46.636	8.24
Subtotal	**60.24**	**237.78**	**68.86**	**62.626**	**0.4**	**0.8**	**12.66**	**24.88**	**1.3**	**82.34**	**52.8**	**1.87**	**90.59**	**8.94**	**0.48**	**3.5**	**0.5**	**0**	**710.566**	**142.26**

Appendix B

Gas Monitoring

&

Gas Migration

Site Name: Dunmore Landfill Site				Site Address: Dunmore, Co. Kilkenny National Grid Reference: 160572N 249519E		
Operator: Kilkenny County Council						
Site Status: Closed				Date: 01/02/11		Time: 11:00
Instrument Used: Infra Red Gas Analyser - GA 94				Date of Calibration: Jul 2010 Next Calibration Due: Jan 2011		
Monitoring Personnel: Alan Rhatigan				Weather: Wet		Barometric Pressure (mb) : 998
RESULTS						
Sample Station Number	**Borehole/ Spike/ Other**	**Survey Depth**	**CH_4 % v/v**	**CO_2 % v/v**	**O_2 % v/v**	**Comments**
VP1	Cell No. 1 Vent	600mm	24.40	20.90	3.20	
VP2	Cell No. 1 Vent	600mm	14.00	12.70	8.10	
VP3	Cell No. 1 Vent	600mm	27.30	18.50	5.00	
VP4	Cell No. 3 Vent	600mm	30.30	18.50	6.00	
VP5	Cell No. 2 Vent	600mm	14.70	12.70	7.60	
VP6	Cell No. 2 Vent	600mm	28.90	17.30	6.70	
VP7	Cell No. 3 Vent	600mm	43.40	25.70	3.00	
VP8	Cell No. 7 Vent	600mm	47.10	26.90	0.90	
VP9	Cell No. 7 Vent	600mm	36.40	20.90	3.90	
VP10	Cell No. 6 Vent	600mm	26.40	18.00	6.70	
VP11	Cell No. 6 Vent	600mm	34.40	15.60	4.10	
VP12	Cell No. 5 Vent	600mm	43.30	24.60	0.80	
VP13	Cell No. 5 Vent	600mm	37.70	18.20	6.90	
VP14	Cell No. 7 Vent	600mm	26.10	7.70	6.30	
VP15	Cell No. 7 Vent	600mm	54.60	32.00	1.80	
VP16	Cell No. 4 Vent	600mm	22.80	18.00	5.80	
VP17	Cell No. 4 Vent	600mm	10.56	16.70	3.20	
VP18	Cell No. 10 Vent	600mm	24.80	22.30	2.20	
VP19	Cell No. 10 Vent	600mm	18.60	16.10	6.70	
VP20	Cell No. 10 Vent	600mm	37.20	26.90	1.10	
VP21	Cell No. 9 Vent	600mm	58.90	32.80	0.00	
VP22	Cell No. 8 Vent	600mm	45.90	30.80	0.40	
VP23	Cell No. 11 Vent	600mm	22.20	21.60	0.50	
VP24	Cell No. 11 Vent	600mm	71.60	22.60	0.20	
VP25	Cell No. 11 Vent	600mm	68.20	34.40	0.20	

VP26	Cell No. 11 Vent	600mm	22.30	22.20	1.00	
VP27	Cell No. 11 Vent	600mm	57.30	30.30	0.10	
VP28	Cell No. 11 Vent	600mm	34.20	27.00	0.60	
VP29	Cell No. 11 Vent	600mm	37.10	29.50	0.20	
VP30	Cell No. 8 Vent	600mm	34.60	24.10	2.00	
VP31	Cell No. 8 Vent	600mm	22.80	19.40	4.50	
VP32	Cell No. 9 Vent	600mm	59.50	34.50	0.60	
VP33	Cell No9 Vent	600mm	65.10	34.10	0.30	
VP34	Cell No10 Vent	600mm	33.10	25.00	2.10	
VP35	Cell No. 10 Vent	600mm	62.90	32.90	0.40	
VP36	Cell No. 10 Vent	600mm	59.10	35.80	0.00	
VP37	Cell No. 11 Vent	600mm	55.20	35.60	0.00	
VP38	Cell No. 12 Vent	600mm	29.50	25.90	0.00	
VP39	Cell No. 12 Vent	600mm	51.10	24.00	4.50	
VP40	Cell No. 12 Vent	600mm	33.40	15.30	6.30	
VP41	Cell No. 12 Vent	600mm	37.10	27.30	0.00	
VP42	Cell No. 12 Vent	600mm	36.00	20.80	8.20	
VP43	Cell No. 12 Vent	600mm	36.40	25.60	0.40	
VP44	Cell No. 12 Vent	600mm	32.80	23.90	2.80	
VP45	Cell No. 12 Vent	600mm	41.40	28.00	1.40	
VP46	Cell No. 12 Vent	600mm	23.00	22.20	1.50	
VP47	Cell No. 12 Vent	600mm	62.30	35.40	0.10	
VP48	Cell No. 12 Vent	600mm	52.80	30.00	1.30	
VP49	Cell No. 12 Vent	600mm	22.30	21.70	0.20	
VP50	Cell No. 12 Vent	600mm	31.70	18.60	5.70	
VP51	Cell No. 12 Vent	600mm	42.50	29.70	0.30	
VP52	Cell No. 14 Vent	600mm	29.40	18.60	9.50	
VP53	Cell No. 14 Vent	600mm	43.40	32.80	0.30	
VP54	Cell No. 14 Vent	600mm	23.90	27.80	0.20	
VP55	Cell No. 14 Vent	600mm	62.40	37.00	0.80	
VP56	Cell No. 14 Vent	600mm	61.60	37.60	0.70	

Site Name: Dunmore Landfill Site				Site Address: Dunmore, Co. Kilkenny		
Operator: Kilkenny County Council				National Grid Reference: 160572N 249519E		
Site Status: Closed				Date: 02/06/11	Time: 08:00	
Instrument Used: Infra Red Gas Analyser - GA 94				Date of Calibration: Jul 2011 Next Calibration Due: Jan 2012		
Monitoring Personnel: Alan Rhatigan				Weather: dry	Barometric Pressure (mb) : 1027	
RESULTS						
Sample Station Number	**Borehole/ Spike/ Other**	**Survey Depth**	**CH_4 % v/v**	**CO_2 % v/v**	**O_2 % v/v**	**Comments**
VP1	Cell No. 1 Vent	600mm	22.20	19.20	6.10	
VP2	Cell No. 1 Vent	600mm	38.00	24.00	2.60	
VP3	Cell No. 1 Vent	600mm	33.40	19.20	5.70	
VP4	Cell No. 3 Vent	600mm	26.90	15.00	8.00	
VP5	Cell No. 2 Vent	600mm	31.70	17.50	7.40	
VP6	Cell No. 2 Vent	600mm	34.60	18.70	7.20	
VP7	Cell No. 3 Vent	600mm	48.50	24.20	2.90	
VP8	Cell No. 7 Vent	600mm	29.90	16.80	5.70	
VP9	Cell No. 7 Vent	600mm	46.70	23.20	4.40	
VP10	Cell No. 6 Vent	600mm	16.10	10.70	10.00	
VP11	Cell No. 6 Vent	600mm	29.90	24.30	1.50	
VP12	Cell No. 5 Vent	600mm	30.80	24.80	1.00	
VP13	Cell No. 5 Vent	600mm	27.00	22.40	3.40	
VP14	Cell No. 7 Vent	600mm	26.30	13.90	6.00	
VP15	Cell No. 7 Vent	600mm	48.90	31.00	2.00	
VP16	Cell No. 4 Vent	600mm	39.50	29.50	1.70	
VP17	Cell No. 4 Vent	600mm	22.80	24.10	2.40	
VP18	Cell No. 10 Vent	600mm	32.20	28.40	0.10	
VP19	Cell No. 10 Vent	600mm	20.30	18.10	6.20	
VP20	Cell No. 10 Vent	600mm	24.80	20.70	4.00	
VP21	Cell No. 9 Vent	600mm	40.00	27.80	1.60	
VP22	Cell No. 8 Vent	600mm	40.90	29.50	0.80	
VP23	Cell No. 11 Vent	600mm	22.20	21.60	0.50	
VP24	Cell No. 11 Vent	600mm	71.60	22.60	0.20	
VP25	Cell No. 11 Vent	600mm	64.80	33.90	0.00	

VP26	Cell No. 11 Vent	600mm	42.10	27.10	0.00	
VP27	Cell No. 11 Vent	600mm	64.90	31.30	0.30	
VP28	Cell No. 11 Vent	600mm	16.20	20.90	0.10	
VP29	Cell No. 11 Vent	600mm	43.20	30.90	0.00	
VP30	Cell No. 8 Vent	600mm	52.10	30.40	0.60	
VP31	Cell No. 8 Vent	600mm	22.80	19.40	4.50	
VP32	Cell No. 9 Vent	600mm	59.50	34.50	0.60	
VP33	Cell No9 Vent	600mm	65.10	34.10	0.30	
VP34	Cell No10 Vent	600mm	22.30	23.00	1.70	
VP35	Cell No. 10 Vent	600mm	63.50	29.60	1.50	
VP36	Cell No. 10 Vent	600mm	59.10	35.80	0.00	
VP37	Cell No. 11 Vent	600mm	29.20	25.10	2.00	
VP38	Cell No. 12 Vent	600mm	31.90	25.60	0.50	
VP39	Cell No. 12 Vent	600mm	64.80	25.90	2.80	
VP40	Cell No. 12 Vent	600mm	31.40	18.40	7.30	
VP41	Cell No. 12 Vent	600mm	37.10	27.30	0.00	
VP42	Cell No. 12 Vent	600mm	59.60	34.40	1.10	
VP43	Cell No. 12 Vent	600mm	36.40	25.60	0.40	
VP44	Cell No. 12 Vent	600mm	32.80	23.90	2.80	
VP45	Cell No. 12 Vent	600mm	41.40	28.00	1.40	
VP46	Cell No. 12 Vent	600mm	23.00	22.20	1.50	
VP47	Cell No. 12 Vent	600mm	18.50	17.80	5.50	
VP48	Cell No. 12 Vent	600mm	52.80	30.00	1.30	
VP49	Cell No. 12 Vent	600mm	22.30	21.70	0.20	
VP50	Cell No. 12 Vent	600mm	31.70	18.60	5.70	
VP51	Cell No. 12 Vent	600mm	42.50	29.70	0.30	
VP52	Cell No. 14 Vent	600mm	29.40	18.60	9.50	
VP53	Cell No. 14 Vent	600mm	31.90	23.40	5.20	
VP54	Cell No. 14 Vent	600mm	33.20	24.60	0.90	
VP55	Cell No. 14 Vent	600mm	64.50	34.80	0.90	
VP56	Cell No. 14 Vent	600mm	55.80	32.10	0.90	

Site Name: Dunmore Landfill Site					Site Address: Dunmore, Co. Kilkenny		
Operator: Kilkenny County Council					National Grid Reference: 160572N 249519E		
Site Status: Closed					Date: 22/12/11	Time: 08:30	
Instrument Used: Infra Red Gas Analyser - GA 94					Date of Calibration: Jul 2010 Next Calibration Due: Jan 2011		
Monitoring Personnel: Alan Rhatigan					Weather: dry	Barometric Pressure (mb) : 1002	
RESULTS							
Sample Station Number	**Borehole/ Spike/ Other**	**Initial Flow Rate mbar**	**Adjusted Flow Rate mbar**	**CH_4 % v/v**	**CO_2 % v/v**	**O_2 % v/v**	**Comments**
VP1	Cell No. 1 Vent	0.25	0.25	33.20	25.90	1.20	Flow not adjusted
VP2	Cell No. 1 Vent	0.25	0.25	36.20	19.60	1.50	Flow not adjusted
VP3	Cell No. 1 Vent	0.00	0.30	28.90	23.80	0.70	Flow increased due to high CH4
VP4	Cell No. 3 Vent	0.40	0.80	36.50	22.80	2.80	Flow increased due to high CH4
VP5	Cell No. 2 Vent	0.30	0.80	52.30	27.10	2.20	Flow increased due to high CH4
VP6	Cell No. 2 Vent	1.00	1.00	35.10	22.80	3.90	Flow not adjusted
VP7	Cell No. 3 Vent	1.20	1.10	39.20	25.60	2.50	Flow not adjusted
VP8	Cell No. 7 Vent	14.00	14.00	26.20	21.50	3.20	Flow not adjusted
VP9	Cell No. 7 Vent	1.00	1.00	30.20	20.50	4.80	Flow not adjusted
VP10	Cell No. 6 Vent	0.60	0.40	23.10	15.20	5.10	Flow decreased due to high O2
VP11	Cell No. 6 Vent	1.00	1.00	35.20	21.40	2.10	Flow not adjusted
VP12	Cell No. 5 Vent	4.00	4.00	38.20	24.00	0.60	Flow not adjusted
VP13	Cell No. 5 Vent	0.30	0.30	29.10	16.20	2.50	Flow not adjusted
VP14	Cell No. 7 Vent	0.00	0.00	1.60	1.20	17.00	closed
VP15	Cell No. 7 Vent	0.80	0.60	28.10	12.20	7.80	Flow decreased due to high O2
VP16	Cell No. 4 Vent	0.50	0.50	26.30	17.20	4.00	Flow not adjusted
VP17	Cell No. 4 Vent	0.50	0.00	16.10	15.20	7.10	Closed
VP18	Cell No. 10 Vent	1.00	1.00	33.80	22.10	3.60	Flow not adjusted
VP19	Cell No. 10 Vent	0.50	0.00	8.00	9.60	11.60	Closed
VP20	Cell No. 10 Vent	1.00	0.80	28.00	20.70	4.80	Flow decreased due to high O2
VP21	Cell No. 9 Vent	0.80	0.50	23.80	16.40	6.20	Flow decreased due to high O2
VP22	Cell No. 8 Vent	1.40	0.80	26.00	17.10	6.00	Flow decreased due to high O2
VP23	Cell No. 11 Vent	21.50	21.50	35.80	23.20	0.50	Flow not adjusted
VP24	Cell No. 11 Vent	21.50	21.50	60.20	22.00	0.40	Flow not adjusted

VP25	Cell No. 11 Vent	21.30	21.20	67.00	30.80	0.60	Flow not adjusted
VP26	Cell No. 11 Vent	12.00	12.00	28.20	21.40	0.30	Flow not adjusted
VP27	Cell No. 11 Vent	21.50	21.50	62.50	32.00	0.50	Flow not adjusted
VP28	Cell No. 11 Vent	2.00	2.00	35.00	22.90	0.50	Flow not adjusted
VP29	Cell No. 11 Vent	1.10	1.00	28.90	22.80	0.70	Flow not adjusted
VP30	Cell No. 8 Vent	21.80	21.80	39.10	26.90	1.10	Flow not adjusted
VP31	Cell No. 8 Vent	21.00	21.00	34.90	24.00	1.70	Flow not adjusted
VP32	Cell No. 9 Vent	21.10	21.00	54.60	23.10	2.90	Flow not adjusted
VP33	Cell No9 Vent	21.80	21.80	61.20	33.10	0.80	Flow not adjusted
VP34	Cell No10 Vent	19.00	19.00	35.10	33.00	0.80	Flow not adjusted
VP35	Cell No. 10 Vent	21.00	21.10	61.00	28.90	1.40	Flow not adjusted
VP36	Cell No. 10 Vent	21.50	21.50	62.30	28.40	0.60	Flow not adjusted
VP37	Cell No. 11 Vent	21.50	21.50	43.80	25.70	0.60	Flow not adjusted
VP38	Cell No. 12 Vent	2.80	2.80	25.00	21.00	0.30	Flow not adjusted
VP39	Cell No. 12 Vent	21.80	21.80	54.60	23.90	2.10	Flow not adjusted
VP40	Cell No. 12 Vent	0.00	0.00	16.00	14.80	8.10	Closed
VP41	Cell No. 12 Vent	1.80	1.80	26.20	21.20	0.70	Flow not adjusted
VP42	Cell No. 12 Vent	21.80	21.80	36.00	23.50	6.00	Flow not adjusted
VP43	Cell No. 12 Vent	21.80	21.80	39.00	25.30	0.70	Flow not adjusted
VP44	Cell No. 12 Vent	10.00	2.00	20.00	20.30	1.10	Flow decreased due to low CH4
VP45	Cell No. 12 Vent	14.80	4.00	23.50	16.20	5.50	Flow decreased due to high O2
VP46	Cell No. 12 Vent	0.80	0.80	34.20	18.60	2.90	Flow not adjusted
VP47	Cell No. 12 Vent	1.00	1.00	36.20	19.20	3.50	Flow not adjusted
VP48	Cell No. 12 Vent	22.50	12.00	28.30	14.00	8.10	Flow decreased due to high O2
VP49	Cell No. 12 Vent	0.00	0.40	36.20	20.00	1.40	Flow increased due to high CH4
VP50	Cell No. 12 Vent	2.00	2.00	29.20	17.90	2.30	Flow not adjusted
VP51	Cell No. 12 Vent	19.00	19.00	41.00	26.80	0.90	Flow not adjusted
VP52	Cell No. 14 Vent	2.50	2.40	30.00	22.50	1.70	Flow not adjusted
VP53	Cell No. 14 Vent	2.00	2.00	39.20	24.00	3.00	Flow not adjusted
VP54	Cell No. 14 Vent	17.00	17.00	41.20	26.80	1.00	Flow not adjusted
VP55	Cell No. 14 Vent	22.30	22.20	62.00	32.20	1.10	Flow not adjusted
VP56	Cell No. 14 Vent	22.30	22.30	49.20	28.90	0.50	Flow not adjusted

LANDFILL GAS MIGRATION MONITORING FORM

Site Name: Dunmore Landfill Site	**Site Address:** Dunmore, Co. Kilkenny	
Operator: Kilkenny County Council	**National Grid Reference:** 160572N 249519E	
Site Status: Closed	**Date:** 01-Feb-11	**Time:** 09:00
Instrument Used: Infra red Gas Analyser - GA 94	**Date Of Calibration:** Jul '10 **Next Calibration Due:** Jan'11	
Monitoring Personnel: Alan Rhatigan	**Weather:** Wet	**Barometric Pressure (mb):** 994

RESULTS

Sample Station Number	Borehole/ Spike/ Other	Survey Depth	CH_4 % v/v	CO_2 % v/v	O_2 % v/v	Comments
GM1	Spike	600mm	0.00	0.60	18.20	
GM2	Spike	600mm	0.00	**2.40**	16.70	
GM3	Spike	600mm	0.00	0.40	19.00	
GM4	Spike	600mm	0.00	0.40	17.30	
GM5	Spike	600mm	0.00	0.90	18.30	
GM7	Spike	600mm	0.00	0.50	18.40	
GM8	Spike	600mm	0.00	0.90	17.10	
GM9	Spike	600mm	0.00	0.60	18.10	
GM10	Spike	600mm	0.00	**1.80**	16.50	
GM11	Spike	600mm	0.00	**2.10**	16.50	
GM12	Spike	600mm	0.00	0.70	17.70	
GM13	Spike	600mm	0.00	0.50	18.10	
GM14	Spike	600mm	0.00	0.90	17.90	
GM15	Spike	600mm	0.00	0.50	18.80	
GM16	Spike	600mm	0.00	0.20	19.10	
GM17	Spike	600mm	0.00	0.90	17.70	
GM18	Spike	600mm	0.00	**1.40**	17.30	
GM19	Spike	600mm	0.00	**2.30**	16.90	
GM20	Spike	600mm	0.00	0.50	18.50	
GM21	Spike	600mm	0.00	1.00	17.30	
GM22	Spike	600mm	0.00	0.90	16.90	
GM23	Spike	600mm	0.00	0.60	17.90	

LANDFILL GAS MIGRATION MONITORING FORM

Site Name: Dunmore Landfill Site	**Site Address:** Dunmore, Co. Kilkenny	
Operator: Kilkenny County Council	**National Grid Reference:** 160572N 249519E	
Site Status: Closed	**Date:** 30-Jun-11	**Time:** 08:30
Instrument Used: Infra red Gas Analyser - GA 94	**Date Of Calibration:** Jul '10 **Next Calibration Due:** Jan'12	
Monitoring Personnel: Alan Rhatigan	**Weather:** Dry	**Barometric Pressure (mb):** 1020

RESULTS

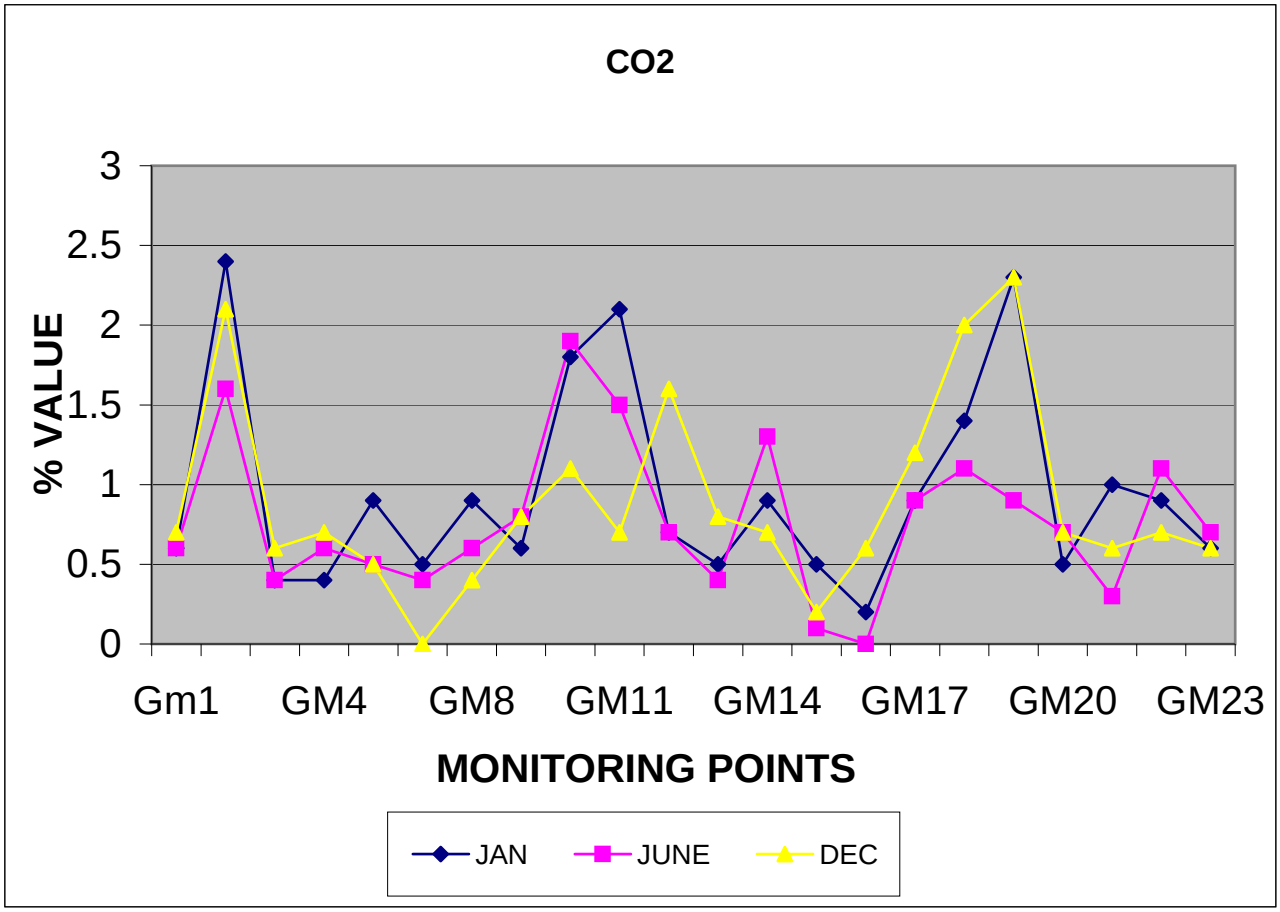
Sample Station Number	Borehole/ Spike/ Other	Survey Depth	CH_4 % v/v	CO_2 % v/v	O_2 % v/v	Comments
GM1	Spike	600mm	0.00	0.60	20.20	
GM2	Spike	600mm	0.00	**1.60**	17.80	
GM3	Spike	600mm	0.00	0.40	19.90	
GM4	Spike	600mm	0.00	0.60	19.60	
GM5	Spike	600mm	0.00	0.50	19.10	
GM7	Spike	600mm	0.00	0.40	19.90	
GM8	Spike	600mm	0.00	0.60	20.40	
GM9	Spike	600mm	0.00	0.80	18.60	
GM10	Spike	600mm	0.00	**1.90**	17.30	
GM11	Spike	600mm	0.00	**1.50**	17.70	
GM12	Spike	600mm	0.00	0.70	19.80	
GM13	Spike	600mm	0.00	0.40	20.50	
GM14	Spike	600mm	0.00	1.30	18.40	
GM15	Spike	600mm	0.00	0.10	20.50	
GM16	Spike	600mm	0.00	0.00	20.40	
GM17	Spike	600mm	0.00	0.90	18.80	
GM18	Spike	600mm	0.00	1.10	18.50	
GM19	Spike	600mm	0.00	**0.90**	18.80	
GM20	Spike	600mm	0.00	0.70	19.10	
GM21	Spike	600mm	0.00	0.30	20.30	
GM22	Spike	600mm	0.00	1.10	17.90	
GM23	Spike	600mm	0.00	0.70	18.90	

LANDFILL GAS MIGRATION MONITORING FORM

Site Name: Dunmore Landfill Site	**Site Address:** Dunmore, Co. Kilkenny	
Operator: Kilkenny County Council	**National Grid Reference:** 160572N 249519E	
Site Status: Closed	**Date:** 20-Dec-11	**Time:** 08:30
Instrument Used: Infra red Gas Analyser - GA 94	**Date Of Calibration:** Jul '10 **Next Calibration Due:** Jan'11	
Monitoring Personnel: Alan Rhatigan	**Weather:** Wet	**Barometric Pressure (mb):** 996

RESULTS

Sample Station Number	Borehole/ Spike/ Other	Survey Depth	CH_4 % v/v	CO_2 % v/v	O_2 % v/v	Comments
GM1	Spike	600mm	0.00	0.70	18.60	
GM2	Spike	600mm	0.00	**2.10**	18.10	
GM3	Spike	600mm	0.00	0.60	18.40	
GM4	Spike	600mm	0.00	0.70	20.10	
GM5	Spike	600mm	0.00	0.50	19.10	
GM7	Spike	600mm	0.00	0.00	20.40	
GM8	Spike	600mm	0.00	0.40	20.60	
GM9	Spike	600mm	0.00	0.80	18.60	
GM10	Spike	600mm	0.00	1.10	16.80	
GM11	Spike	600mm	0.00	0.70	17.10	
GM12	Spike	600mm	0.00	**1.60**	17.80	
GM13	Spike	600mm	0.00	0.80	15.90	
GM14	Spike	600mm	0.00	0.70	18.20	
GM15	Spike	600mm	0.00	0.20	18.60	
GM16	Spike	600mm	0.00	0.60	18.60	
GM17	Spike	600mm	0.00	1.20	18.10	
GM18	Spike	600mm	0.00	2.00	17.60	
GM19	Spike	600mm	0.00	**2.30**	16.80	
GM20	Spike	600mm	0.00	0.70	20.00	
GM21	Spike	600mm	0.00	0.60	20.10	
GM22	Spike	600mm	0.00	0.70	19.60	
GM23	Spike	600mm	0.00	0.60	19.40	



January, June and December have been given as sample readings taken in 2011. However no trigger levels were reached during the reporting year.

The upper CO2 limit of 3% was not exceeded at any stage in 2011

CH4 was not detected at any of the monitoring points in 2011 therefore a graph has not been presented for this parameter.

Appendix C

Surface, Ground Water

Monitoring

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Leachate Monitoring

&

Dust Monitoring

Groundwater Parameters & Trends

PH	1st 1/4 2011	2nd 1/4 2011	3rd 1/4 2011	4th 1/4 2011
GW 1	7.1	7.4	7.5	7.3
GW 2	7.3	7.3	7.4	7.0
GW 4	7.0	7.2	7.2	7.0
MW 1	7.0	7.1	7.2	7.0
Well 3	7.4	7.3	7.3	7.2
Well 6	7.0	7.1	7.2	7.0
Well 14	7.4	7.2	7.2	7.2
Well 15	7.1	7.1	7.1	6.9

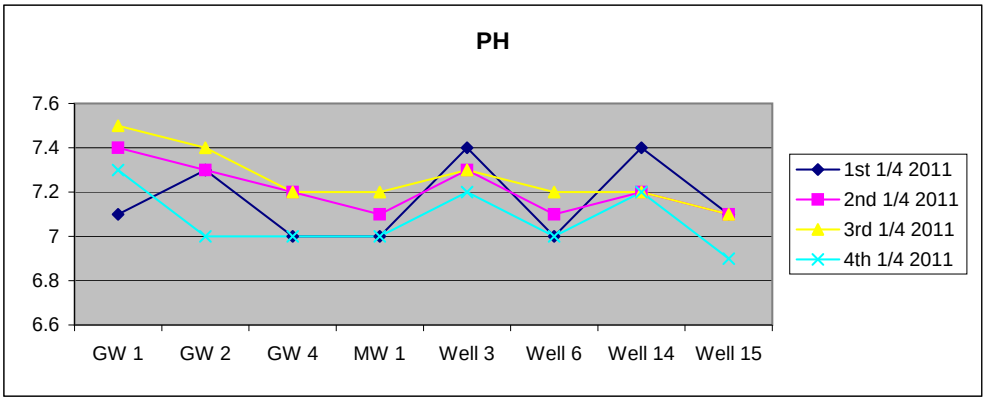
Conductivity uS/cm	1st 1/4 2011	2nd 1/4 2011	3rd 1/4 2011	4th 1/4 2011
GW 1	627	594	591	608.0
GW 2	614.0	599.0	591.0	628.0
GW 4	639.0	657.0	660.0	677.0
MW 1	717.0	746.0	716.0	724.0
Well 3	588.0	623.0	609.0	603.0
Well 6	728.0	724.0	693.0	699.0
Well 14	524.0	615.0	654.0	675.0
Well 15	690.0	703.0	710.0	726.0

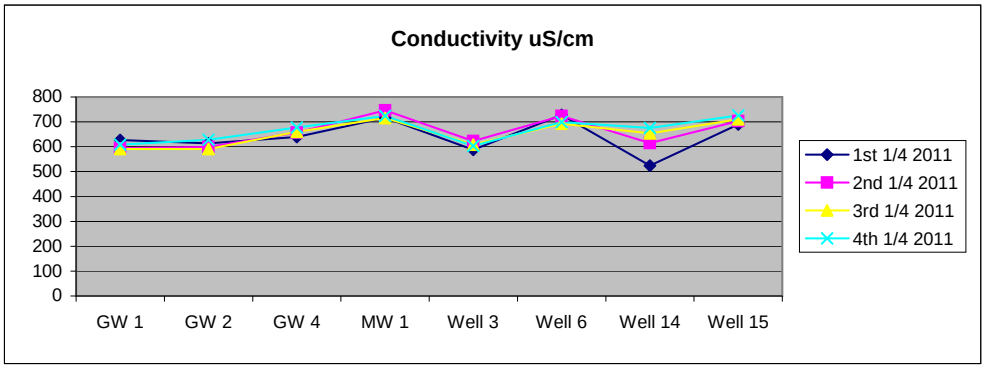
Ammonia mg/lN	1st 1/4 2011	2nd 1/4 2011	3rd 1/4 2011	4th 1/4 2011
GW 1	0.01	0.01	0.01	0.10
GW 2	1.40	0.01	0.40	0.15
GW 4	5.50	0.01	0.03	0.07
MW 1	7.10	0.01	0.05	0.12
Well 3	1.40	0.01	0.11	0.90
Well 6	0.02	0.01	0.04	0.09
Well 14	7.40	0.01	0.12	0.33
Well 15	0.01	0.01	0.01	0.04

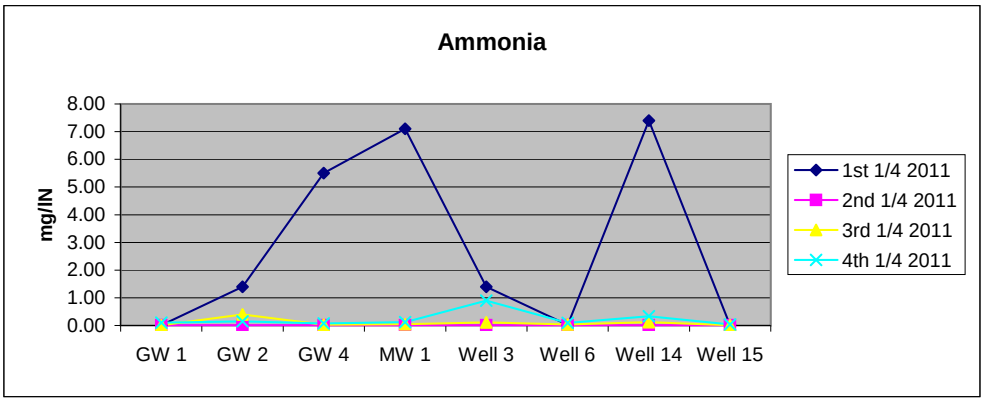
Chloride mg/l Cl	1st 1/4 2011	2nd 1/4 2011	3rd 1/4 2011	4th 1/4 2011
GW 1	22	18	17	17.0
GW 2	15.0	17.0	18.0	18.0
GW 4	16.0	20.0	20.0	20.0
MW 1	18.0	21.0	19.0	19.0
Well 3	15.0	19.0	21.0	20.0
Well 6	19.0	19.0	19.0	19.0
Well 14	7.0	6.0	4.0	5.0
Well 15	20.0	19.0	20.0	22.0

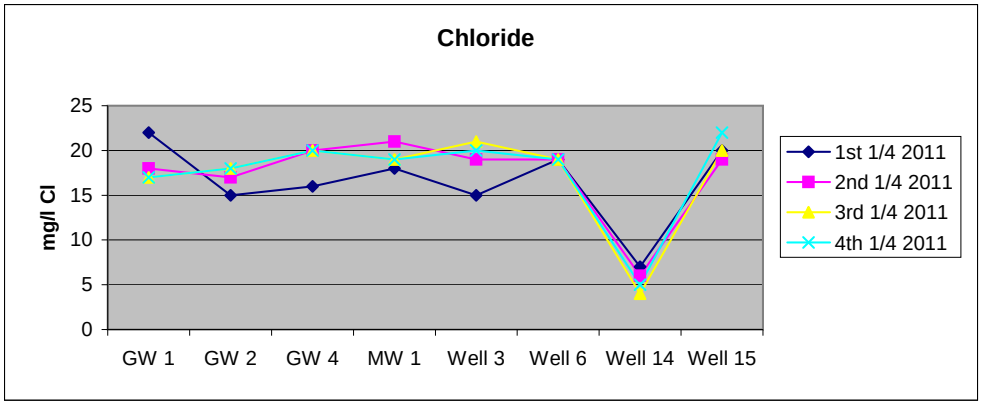
Dissolved O2 %	1st 1/4 2011	2nd 1/4 2011	3rd 1/4 2011	4th 1/4 2011
GW 1	80	74	94	88.0
GW 2	66.0	34.0	24.8	35.0
GW 4	62.0	70.0	69.0	68.0
MW 1	54.0	70.0	63.0	59.0
Well 3	37.0	49.0	37.0	17.0
Well 6	23.0	41.0	47.0	42.0
Well 14	64.0	39.0	39.0	41.0
Well 15	24.0	24.0	29.0	30.0

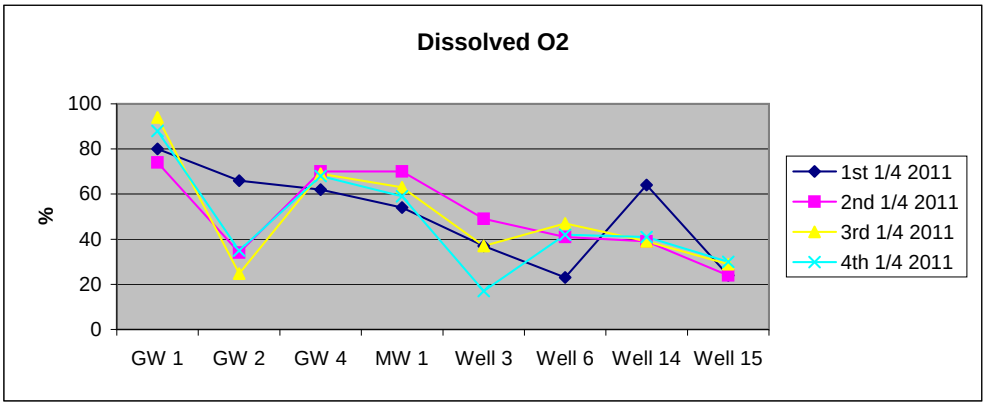
Iron mg/l	1st 1/4 2011	2nd 1/4 2011	3rd 1/4 2011	4th 1/4 2011
GW 1	0.52	0.52	1.100	
GW 2	0.2	0.23	0.480	
GW 4	0.2	0.02	0.088	
MW 1	0.2	0.02	0.025	
Well 3	0.3	0.02	0.130	
Well 6	0.0	0.64	0.025	
Well 14	0.1	0.26	0.025	
Well 15	0.2	0.19	0.170	

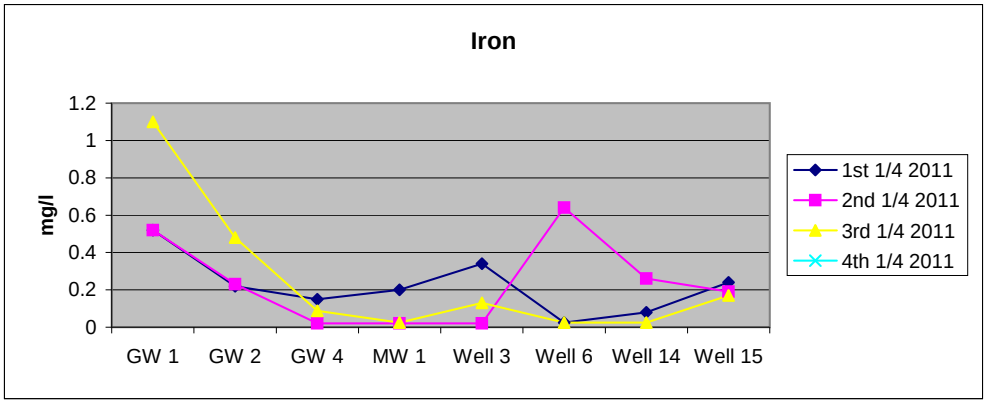





Ammonia
mg/lN
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
GW 1
GW 2
GW 4
MW 1
Well 3
Well 6
Well 14
Well 15
1st 1/4 2011
2nd 1/4 2011
3rd 1/4 2011
4th 1/4 2011


Chloride
mg/l Cl
25
20
15
10
5
0
GW 1
GW 2
GW 4
MW 1
Well 3
Well 6
Well 14
Well 15
1st 1/4 2011
2nd 1/4 2011
3rd 1/4 2011
4th 1/4 2011


Dissolved O2
%
100
80
60
40
20
0
GW 1
GW 2
GW 4
MW 1
Well 3
Well 6
Well 14
Well 15
1st 1/4 2011
2nd 1/4 2011
3rd 1/4 2011
4th 1/4 2011


Iron
mg/l
1.2
1
0.8
0.6
0.4
0.2
0
GW 1
GW 2
GW 4
MW 1
Well 3
Well 6
Well 14
Well 15
1st 1/4 2011
2nd 1/4 2011
3rd 1/4 2011
4th 1/4 2011

Leachate Parameters & Trends

PH	1st 1/4 2011	2nd 1/4 2011	3rd 1/4 2011	4th 1/4 2011
Lagoon	7.2	8.5	7.6	7.50
MH1	7.0	7.0	6.7	
MH3	7.0	6.7	6.7	6.70
MH5	7.5	7.3	7.1	7.30

Conductivity uS/cm	1st 1/4 2011	2nd 1/4 2011	3rd 1/4 2011	4th 1/4 2011
Lagoon	4630.0	6460.0	7890.0	10170.0
MH1	9700.0	10360.0	2820.0	
MH3	902.0	1530.0	1196.0	2070.0
MH5	9240.0	8430.0	8260.0	12620.0

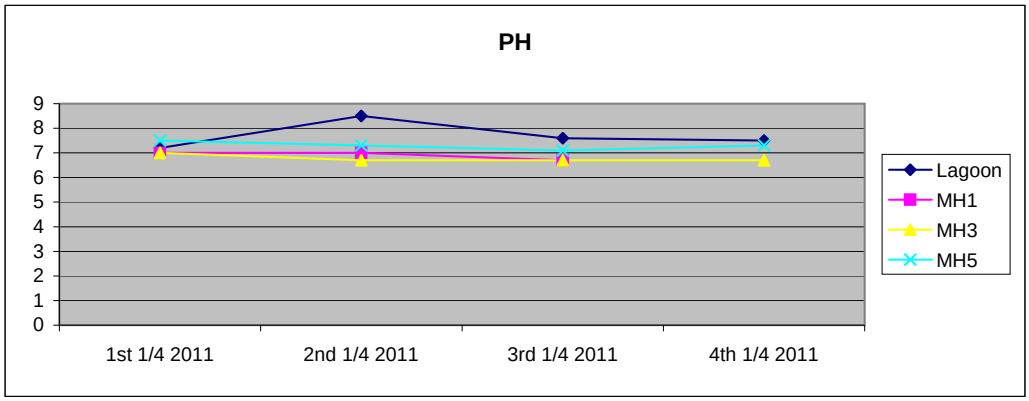
C.O.D	1st 1/4 2011	2nd 1/4 2011	3rd 1/4 2011	4th 1/4 2011
Lagoon	189.0	615.0	462.0	693.0
MH1	822.0	619.0	107.0	
MH3	62.0	43.0	34.0	42.0
MH5	428.0	538.0	488.0	778.0

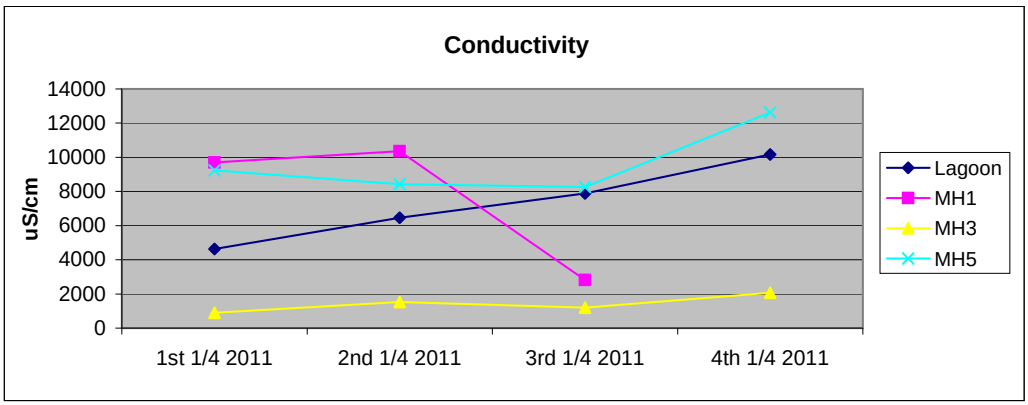
B.O.D	1st 1/4 2011	2nd 1/4 2011	3rd 1/4 2011	4th 1/4 2011
Lagoon	14.0	81.0	12.0	54.0
MH1	35.0	36.0	6.3	
MH3	24.6	7.7	22.3	25.2
MH5	33.0	21.0	24.0	48.0

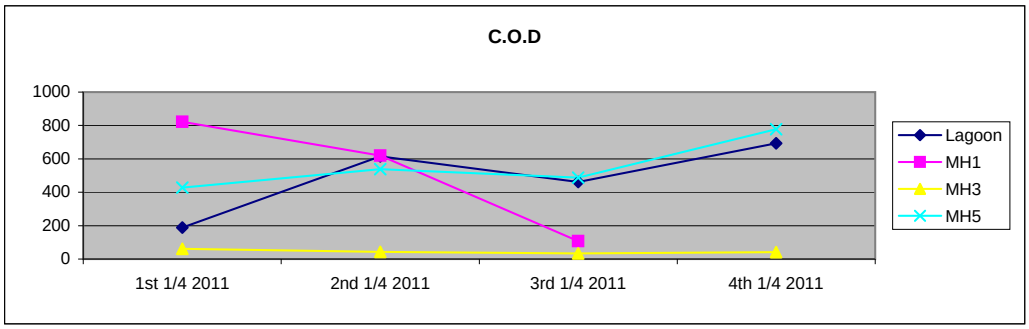
Ammonia	1st 1/4 2011	2nd 1/4 2011	3rd 1/4 2011	4th 1/4 2011
Lagoon	120.0	190.0	300.0	383.0
MH1	540.0	590.0	79.0	
MH3	49.0	60.0	46.0	49.0
MH5	440.0	320.0	310.0	383.0

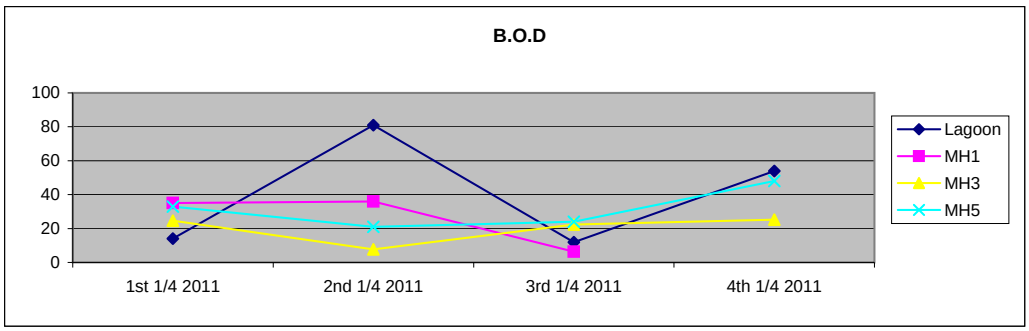
Chloride	1st 1/4 2011	2nd 1/4 2011	3rd 1/4 2011	4th 1/4 2011
Lagoon	658.0	1138.0	1267.0	1582.0
MH1	1354.0	1472.0	317.0	
MH3	154.0	220.0	173.0	195.0
MH5	1176.0	1235.0	1277.0	1892.0

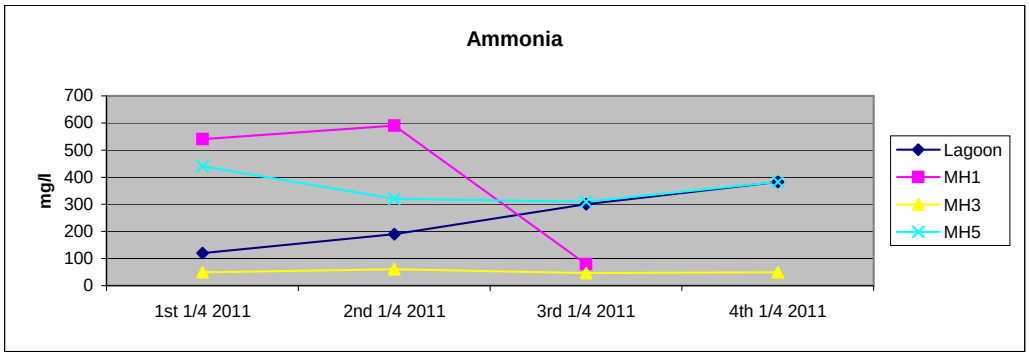
T.O.N	1st 1/4 2011	2nd 1/4 2011	3rd 1/4 2011	4th 1/4 2011
Lagoon	3.34	0.5	0.5	0.5
MH1	0.5	0.5	0.5	
MH3	6.2	14.7	13.8	16.79
MH5	0.5	0.5	0.5	0.5

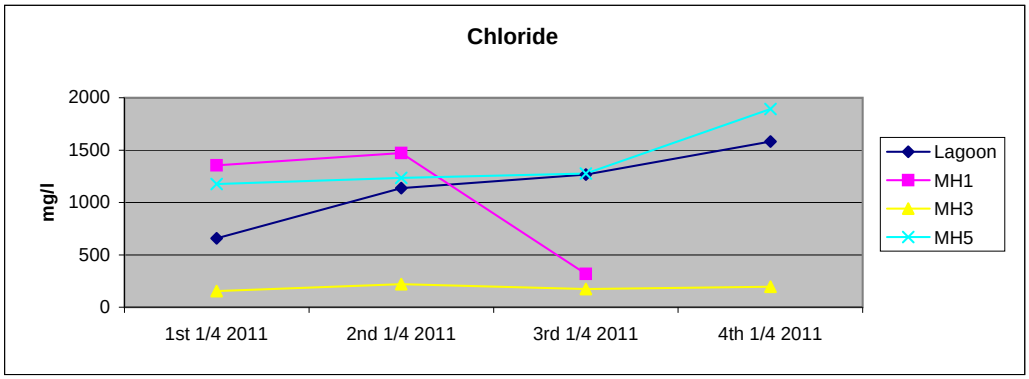


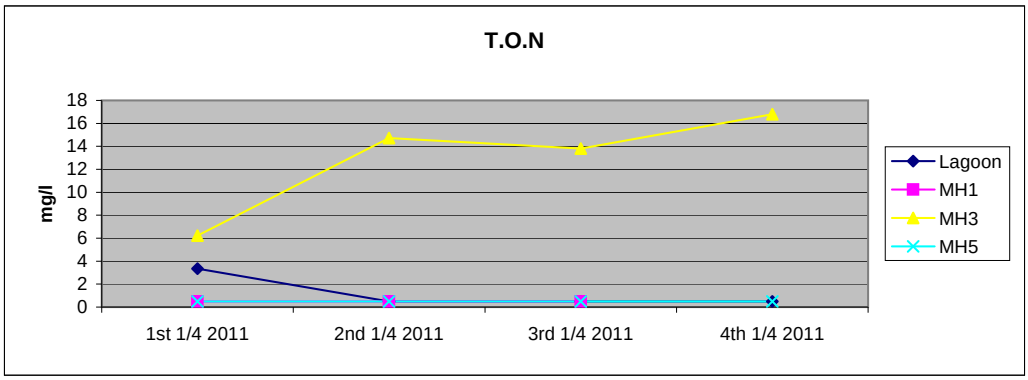



C.O.D
1000
800
600
400
200
0
1st 1/4 2011
2nd 1/4 2011
3rd 1/4 2011
4th 1/4 2011
Lagoon
MH1
MH3
MH5


B.O.D
100
80
60
40
20
0
1st 1/4 2011
2nd 1/4 2011
3rd 1/4 2011
4th 1/4 2011
Lagoon
MH1
MH3
MH5


Ammonia
mg/l
700
600
500
400
300
200
100
0
1st 1/4 2011
2nd 1/4 2011
3rd 1/4 2011
4th 1/4 2011
Lagoon
MH1
MH3
MH5


Chloride
mg/l
2000
1500
1000
500
0
1st 1/4 2011
2nd 1/4 2011
3rd 1/4 2011
4th 1/4 2011
Lagoon
MH1
MH3
MH5


T.O.N
mg/l
18
16
14
12
10
8
6
4
2
0
1st 1/4 2011
2nd 1/4 2011
3rd 1/4 2011
4th 1/4 2011
Lagoon
MH1
MH3
MH5

Surface Wate Parameters

PH	1st 1/4 2011	2nd 1/4 2011 No Results	3rd 1/4 2011 No Results	4th 1/4 2011 No Results
Upstream 'A'	7.9			
Downstream 'A'	8.2			

Conductivity	1st 1/4 2011	2nd 1/4 2011 No Results	3rd 1/4 2011 No Results	4th 1/4 2011 No Results
Upstream 'A'	390.0			
Downstream 'A'	376.0			

Dissolved O2	1st 1/4 2011	2nd 1/4 2011 No Results	3rd 1/4 2011 No Results	4th 1/4 2011 No Results
Upstream 'A'	97.0			
Downstream 'A'	102.0			

Chloride	1st 1/4 2011	2nd 1/4 2011 No Results	3rd 1/4 2011 No Results	4th 1/4 2011 No Results
Upstream 'A'	12.0			
Downstream 'A'	12.0			

No Results taken in the 2nd, 3rd, and 4th quarters of 2011 as the stream was dry.

Ammonia	1st 1/4 2011	2nd 1/4 2011 No Results	3rd 1/4 2011 No Results	4th 1/4 2011 No Results
Upstream 'A'	6.6			
Downstream 'A'	2.4			

C.O.D	1st 1/4 2011	2nd 1/4 2011 No Results	3rd 1/4 2011 No Results	4th 1/4 2011 No Results
Upstream 'A'	20.0			
Downstream 'A'	20.0			

B.O.D	1st 1/4 2011	2nd 1/4 2011 No Results	3rd 1/4 2011 No Results	4th 1/4 2011 No Results
Upstream 'A'	0.5			
Downstream 'A'	0.5			

DUNMORE LANDFILL

Dust Deposition Monitoring

Station Number	Location	Result (mg/m2/day)		
		March	June	August
DG1	Landfill SW boundary beside GW4(O'Neill's Gate)	**57**	**128**	**103**
DG2	South Cell Cell 13	*****	*****	*****
DG3	Cell 8	**62**	**83**	**125**
DG4	East of Weighbridge	**73**	**67**	**108**
DG5	NE Boundary	**73**	**53**	**143**
	* Gauge removed			

Appendix D

Site Drawing

SITE PLAN

Scale 1:2000

Legend:

Waste Licence Boundary

Rev.	Drawn	Chkd	Appd	Date	Description
A	TM	SM	PK	29.02.12	ISSUE FOR INFORMATION

Revision History: A

Name of Client

KILKENNY COUNTY COUNCIL

Name of Job

DUNMORE LANDFILL

PROPOSED GREEN WASTE DISPOSAL AREA

Title of Drawing

Proposed Location of Green Waste Disposal Area

Scales Used: 1:2000

This Drawing was printed to A3

Dwg. No.: LW11-112-01-001

Rev.: A

O:\ACAD\2011\LW11\112\01\LW111201_001

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North Park Business Park, North Road, Dublin 11, Ireland.
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0m 10.00m 20.00m 30.00m 40.00m 50.00m 60.00m 70.00m 80.00m 90.00m 100.00m

Scale 1:2000

ORIGINAL DRAWING SIZE A1 - (841 x 594)

NATURAL SCALE

Appendix E

Status of Objectives and Targets

Objectives		Status	Comments
Objective 1			
Ensure that all waste acceptance requirements are met			
Target 1.1	All waste accepted at the facility is within the criteria set out in Part I of the Waste Licence.	Compliant	
Target 1.2	Any restriction on waste entering the facility shall be strictly enforced.	Compliant	
Target 1.3	All waste accepted for recovery and disposal shall be done so within the opening hours i.e. 8.00 – 4.30 Mon –Fri. and 8.00 12.00 Sat.	Compliant	
Objective 2			
Provision of required infrastructure at the facility with the agreement of the agency			
Target 2.1	Security fencing to be installed around Recycling & waste disposal centre.	Work to commence January 2012.	
Target 2.2	New facility offices, will be provided, which will incorporate telephones and an electronic communication facility by April 2011.	In place from January 2011.	
Target 2.3	A full surface water management system was		

	incorporated in the capping, following the Agencies agreement. Surface water from cells 13 & 14 will be diverted to the surface water stream upon completion of capping works.	Completed	
Target 2.4	A proposal on the segregation of green waste to be stock piled in the waste quarantine area for collection and composting at an appropriately permitted facility upon approval by the Agency.	To be submitted to the Agency early 2012	
Target 2.5	Storage and shredding area for Christmas Trees shall be provided in the first 2 weeks of January.	Ongoing Annually	
Objective 3			
Establishment of a plan for the restoration and aftercare of the facility.			
Target 3.1	Boundary reduction for to facilitate leasing of land to the GAA for recreational use.		
Target 3.2	Final top soiling of cells 12, 13 & 14.	Completed April 2011	
.			

Objective 4 The facility shall be operated to ensure there are no adverse environmental effects as a result of the operation of the facility.			
Target 4.1	All lagoons structures at the site will be independently tested to ensure that the liner integrity is upheld.	To be carried out early 2012	
Target 4.2	The gas flare will be serviced every quarter and the flare efficiency tested every 3 years.	To be carried out 2012	
<u>Objective 5</u> Control of emissions at the facility			
Target 5.1	Any emission exceeding trigger levels or unauthorised emission will be notified to the Agency.	Ongoing	
Objective 6 To submit all relevant reports and notifications to the Agency in the timeframes specified			
Target 6.1	Any incident at the site shall be notified in accordance with the correct action procedure.	Ongoing	
Target 6.2	All quarterly and annual reports to be submitted as per licence requirements.	Ongoing	

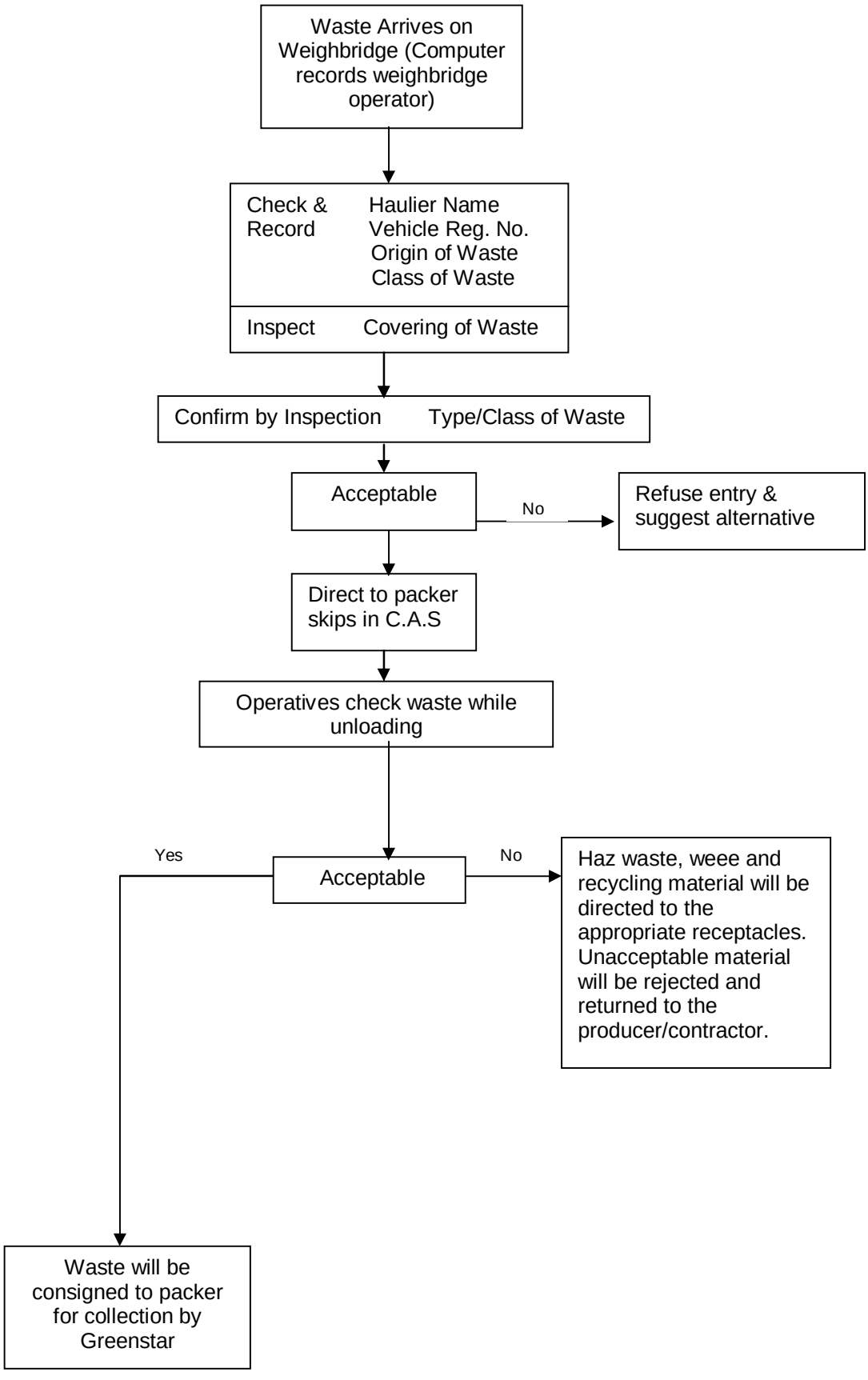
Appendix F

Waste Acceptance

Procedure Flowchart

DUNMORE RECYCLING & WASTE DISPOSAL CENTRE

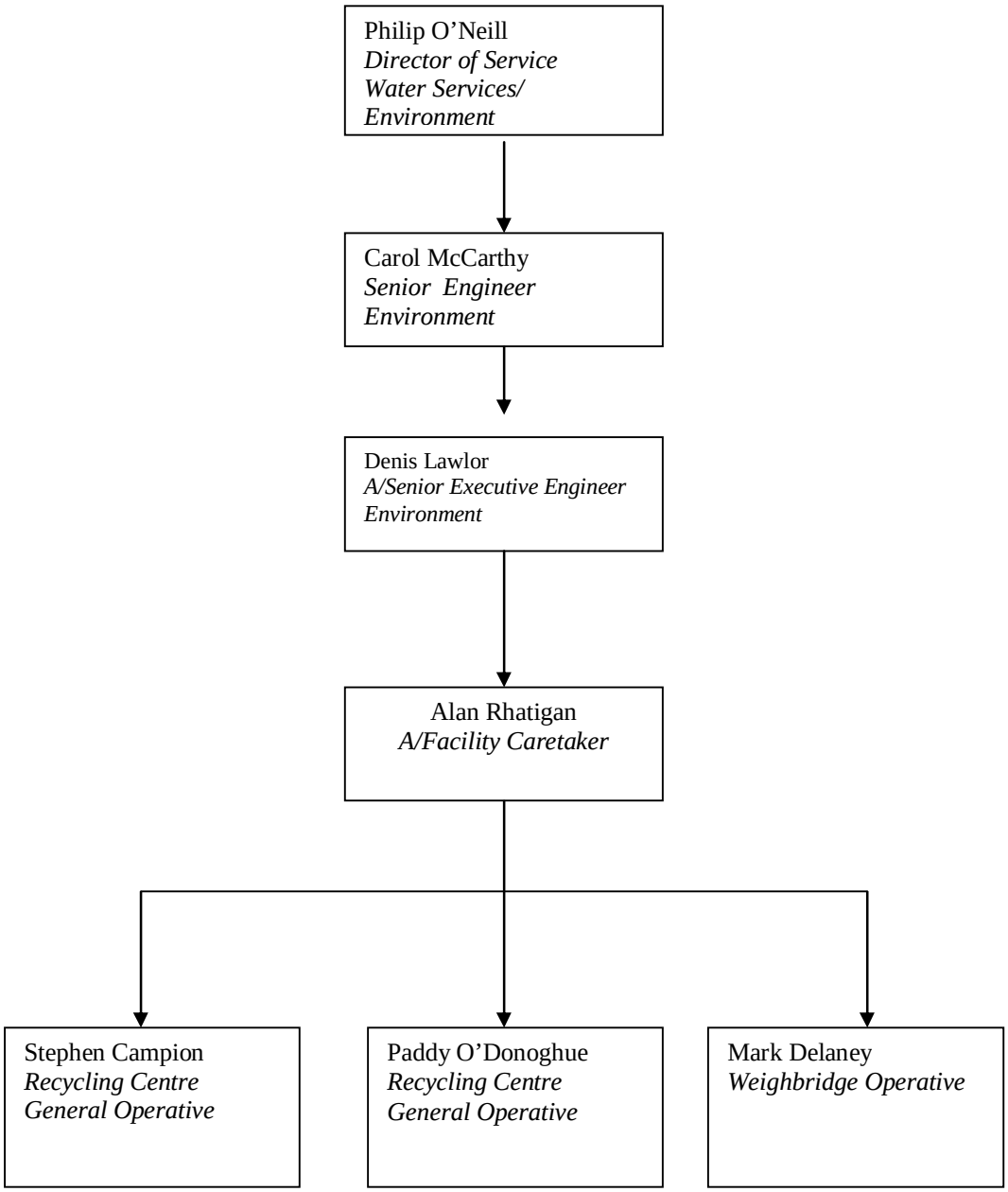
WASTE ACCEPTANCE PROCEDURE



Appendix G

Management Structure

Staff Structure – Dunmore Landfill



Appendix H

Sample Flare Data

Date	Time	Blower	CO	Damper Position	CH4	O2	PRESSURE	Temp	FLOW	CO2
09/11/2010	00:06:23	55.00000000	2.36731410	35.04774475	40.06008148	1.72741830	11.24173832	1019.37908936	132.07289124	24.48227501
09/11/2010	00:36:23	55.00000000	2.41938710	34.25622940	39.90386200	1.68736219	11.28379726	1020.62884521	131.57620239	24.53034210
09/11/2010	01:06:23	55.00000000	2.37532544	32.37518311	39.47526550	1.74644494	11.30182266	1018.44183350	131.96073914	24.35810089
09/11/2010	01:36:23	55.00000000	2.41538143	33.11542511	39.20288086	1.79150808	11.31984806	1018.91046143	131.89665222	24.40216255
09/11/2010	02:06:23	55.00000000	2.40336466	34.49977493	39.05067062	1.81053472	11.20568752	1020.21228027	132.28118896	24.44622421
09/11/2010	02:36:23	55.00000000	2.24714589	32.54502106	38.75825882	1.86861598	11.29581451	1019.79571533	132.29721069	24.30202103
09/11/2010	03:06:23	55.00000000	2.34728599	33.53841782	38.49789429	1.91067481	11.19967937	1020.10815430	131.65631104	24.23793221
09/11/2010	03:36:23	55.00000000	2.54756641	32.70845032	38.41778183	1.94372118	11.35589790	1019.74365234	131.86460876	24.26997757
09/11/2010	04:36:23	55.00000000	2.42339253	33.74671173	37.82094955	2.05087113	11.35589790	1019.48327637	131.88063049	24.02964020
09/11/2010	05:06:23	55.00000000	2.21910667	35.15990067	37.74484253	2.06088519	11.36791515	1021.30578613	131.78450012	23.90146065
09/11/2010	05:36:24	55.00000000	2.29120755	31.30487442	37.42439270	2.15301418	11.32585621	1018.65008545	131.67233276	24.03364563
09/11/2010	06:06:24	55.00000000	2.22311234	32.93276596	36.79951859	2.28720188	11.25375557	1020.42059326	131.75244141	23.60504532
09/11/2010	06:36:24	55.00000000	2.42739820	31.78234673	36.43100357	2.33026218	11.44001579	1019.06665039	131.25575256	23.78529930
09/11/2010	07:06:24	55.00000000	2.28720188	31.01646805	36.11856461	2.44442201	11.40396595	1020.00396729	131.67233276	23.69316864
09/11/2010	07:36:24	55.00000000	2.38734221	34.40684128	35.86220551	2.48748231	11.33186436	1021.98278809	131.35188293	23.05627823
09/11/2010	08:06:24	55.00000000	2.34728599	30.49413300	35.46965790	2.54956937	11.24774647	1019.17083740	131.56018066	23.06028366
09/11/2010	08:36:24	55.00000000	2.40336466	30.39158821	35.36150360	2.55657911	11.27778912	1018.44183350	131.54415894	23.40076065
09/11/2010	09:36:24	55.00000000	2.36330843	28.74126625	34.62447357	2.69477248	11.21169662	1020.47265625	132.95413208	22.93610954
09/11/2010	10:36:24	55.00000000	2.30322433	28.80215073	34.50430298	2.71379924	11.37993145	1020.10815430	133.75524902	22.93610954
09/11/2010	11:06:24	55.00000000	2.28319645	29.26360130	34.54035568	2.66473055	11.29581451	1019.63946533	134.13978577	23.14440155
09/11/2010	11:36:24	55.00000000	2.16302824	26.18406487	34.49629211	2.67474461	11.44602394	1020.47265625	133.37071228	23.28459740
09/11/2010	12:06:24	55.00000000	2.41938710	27.04928398	34.15180969	2.70078087	11.35589790	1019.11877441	132.55357361	23.24454117
09/11/2010	12:36:24	55.00000000	2.50350475	28.40158653	34.19186783	2.66573191	11.41598225	1020.62884521	132.56959534	23.26857567
09/11/2010	13:36:24	55.00000000	2.24714589	24.80612564	34.18385696	2.64169836	11.56018448	1019.11877441	132.64970398	23.50891113
09/11/2010	14:06:24	55.00000000	2.39535332	25.61366272	34.18786240	2.56358886	11.54816723	1018.59802246	132.68174744	23.40076065
09/11/2010	14:36:24	55.00000000	2.24714589	26.24174690	34.46825409	2.52653694	11.51812553	1019.58740234	133.70718384	23.46885490
09/11/2010	15:06:24	55.00000000	2.22311234	25.34127808	34.19587326	2.63268566	11.52413368	1019.43121338	134.15580750	23.24854660
09/11/2010	15:36:24	55.00000000	2.36330843	26.62628746	34.34808731	2.54756641	11.60224342	1020.00396729	133.62707520	23.26857567
09/11/2010	16:36:24	55.00000000	2.29521322	26.84739876	33.75125122	2.65972352	11.56619263	1021.30578613	133.43479919	23.12837791
09/11/2010	17:06:25	55.00000000	2.31924677	21.95731354	33.62707520	2.71680331	11.65631866	1020.21228027	133.59503174	23.15641785
09/11/2010	17:36:25	55.00000000	2.39935899	17.08325195	33.59102631	2.71379924	11.67434406	1018.44183350	133.67514038	23.16042328
09/11/2010	18:36:25	55.00000000	2.41137576	16.91341209	33.31464005	2.76987767	11.78850365	1019.11877441	133.65911865	23.05627823
09/11/2010	19:06:25	55.00000000	2.59563375	20.71716881	33.18245316	2.75085115	11.74644470	1020.62884521	135.58180237	22.86000252
09/11/2010	19:36:25	55.00000000	2.33526921	13.92039871	33.16643143	2.81494069	11.70438576	1018.70214844	134.82875061	22.81594086
09/11/2010	20:36:25	55.00000000	2.49148798	18.96750450	33.19847488	2.78690147	11.77047825	1020.57678223	136.15861511	23.00420570
09/11/2010	21:06:25	55.00000000	2.45944309	18.46119118	33.36270523	2.75085115	11.74644470	1021.56616211	135.99839783	23.20849037
09/11/2010	21:36:25	55.00000000	2.47145987	20.53451157	33.48287582	2.74384117	11.84858799	1022.50347900	136.25474548	22.93210411
09/11/2010	22:06:25	55.00000000	2.55958343	17.38768005	33.51892471	2.67073894	11.78249550	1019.06665039	136.51110840	22.93610954
09/11/2010	22:36:25	55.00000000	2.40336466	20.79087257	33.56298828	2.69677544	11.86661339	1020.68090820	136.33486938	23.16843414
09/11/2010	23:36:25	55.00000000	2.29120755	19.17259407	33.32265091	2.70779085	11.83056259	1019.74365234	136.17463684	22.99619293
10/11/2010	00:00:08	55.00000000	2.29921889	20.25892258	33.43480682	2.72181034	11.92068863	1021.30578613	136.63928223	23.00821114

Date	Time	Blower	CO	Damper Position	CH4	O2	PRESSURE	Temp	FLOW	CO2
12/12/2011	00:00:22	50.00000000	0.76507109	0.42299554	41.55417252	0.51672339	6.45904255	953.50689697	93.90746307	25.84818649
12/12/2011	00:00:53	50.00000000	0.70098132	0.42299554	41.55817795	0.51672339	7.28219509	952.20507813	93.89144135	25.44762611
12/12/2011	00:30:53	50.00000000	0.85720003	0.42299554	41.32585526	0.53374720	7.94912863	953.87139893	94.93289948	25.65191078
12/12/2011	01:30:53	50.00000000	0.71700376	0.42299554	41.60624695	0.53474861	7.99118757	958.61004639	95.62186432	25.83216476
12/12/2011	02:00:53	50.00000000	0.72501498	0.42299554	41.43400574	0.53575003	5.91828537	944.23791504	93.97155762	25.90826988
12/12/2011	02:30:53	50.00000000	0.48467854	0.41979104	41.43801117	0.54376125	6.75946331	950.48669434	94.30802917	25.80412483
12/12/2011	03:30:54	50.00000000	0.54476267	0.42299554	41.15761948	0.60985374	6.04446220	941.68634033	91.61625671	25.62387276
12/12/2011	04:00:54	50.00000000	0.51672339	0.42299554	40.99739456	0.63188463	6.99379110	943.40472412	94.86881256	25.78810310
12/12/2011	04:30:54	50.00000000	0.52473462	0.41979104	40.76106262	0.65091127	6.99379110	943.97753906	93.47486115	25.86020279
12/12/2011	05:00:54	50.00000000	0.54476267	0.42299554	40.72100830	0.66693366	6.04446220	944.91485596	94.72460938	25.79611397
12/12/2011	05:30:54	50.00000000	0.58081311	0.41979104	40.68095016	0.67895049	6.90366507	930.90722656	93.04225159	25.70799065
12/12/2011	06:00:54	50.00000000	0.65691966	0.42299554	40.74504089	0.68796313	6.62126970	934.50030518	93.93951416	25.72801781
12/12/2011	06:30:54	50.00000000	0.58481872	0.42299554	40.55677795	0.70899254	6.90967369	941.89465332	93.98757935	26.12457275
12/12/2011	07:00:54	50.00000000	0.50070095	0.42299554	40.48067093	0.71600235	8.13538933	936.01037598	91.98477173	25.76406860
12/12/2011	07:30:54	50.00000000	0.58481872	0.42299554	40.48067093	0.70999396	7.89505291	938.19744873	93.23452759	25.75205231
12/12/2011	08:00:54	50.00000000	0.55677944	0.42299554	40.45263290	0.73202479	7.54656506	933.61505127	92.14499664	25.92028809
12/12/2011	08:30:54	50.00000000	0.54876828	0.41979104	40.33246231	0.73402762	8.21349907	939.60345459	93.79531097	25.86020279
12/12/2011	09:30:54	50.00000000	0.48868415	0.42299554	40.51271439	0.72902060	7.70879221	925.64788818	94.59642792	25.68796158
12/12/2011	10:00:54	50.00000000	0.44061685	0.42299554	40.75705719	0.69597435	7.30022049	936.16662598	94.64450073	25.85619736
12/12/2011	10:30:54	50.00000000	0.70098132	0.42299554	40.64890671	0.68696171	7.13198471	948.14337158	96.58321381	25.63188362
12/12/2011	11:00:54	50.00000000	0.70098132	0.42299554	40.64890671	0.70698977	6.41698360	949.08068848	95.57379913	25.65992355
12/12/2011	11:30:54	50.00000000	0.61686361	0.42299554	40.76907349	0.68095332	6.83156395	957.56860352	95.73402405	25.70398521
12/12/2011	12:00:54	50.00000000	0.63288599	0.42299554	41.08151245	0.61085516	8.46585178	958.92248535	95.83015442	25.69597244
12/12/2011	12:30:54	50.00000000	0.54876828	0.42299554	41.48207474	0.52072901	7.67875004	971.78448486	96.55117035	25.92429352
12/12/2011	13:00:54	50.00000000	0.69297016	0.42299554	42.07089615	0.42159021	9.37913036	993.34265137	97.84898376	26.38493729
12/12/2011	13:30:55	50.00000000	0.54075706	0.41979104	42.50750732	0.34047666	7.13198471	1008.07928467	99.00260162	26.44101715
12/12/2011	14:00:55	50.00000000	0.66493088	0.41979104	42.88403702	0.27939114	8.96455002	1009.32904053	101.05347443	26.68535805
12/12/2011	14:30:55	50.00000000	0.68896455	0.78830987	43.44081497	0.19126777	9.29501343	1018.38970947	101.71038818	26.50110054
12/12/2011	15:30:55	50.00000000	0.60084116	7.24860573	45.05507660	-0.04205888	9.08471870	1020.68090820	104.09773254	27.02182961
12/12/2011	16:00:55	50.00000000	0.56078506	6.83842802	45.16723251	-0.05908271	7.90106153	1019.58740234	102.07890320	27.62267113
12/12/2011	16:30:55	50.00000000	0.58081311	10.02371216	45.49168777	-0.11015421	8.14139748	1020.88922119	106.72541046	27.53454781
12/12/2011	17:00:55	50.00000000	0.66493088	12.56168556	46.00440598	-0.13218506	9.02463436	1022.92004395	104.89885712	27.27818871
12/12/2011	17:30:55	50.00000000	0.58081311	9.03351879	46.04045486	-0.14219907	8.18345642	1019.27496338	105.12316895	27.09793663
12/12/2011	18:00:55	50.00000000	0.53675145	8.43747902	46.12056732	-0.14119767	9.14480305	1019.11877441	99.99598694	27.42639542
12/12/2011	18:30:55	50.00000000	0.56479067	8.35095787	45.85219193	-0.11115561	7.27017832	1020.00396729	101.74243164	27.35028839
12/12/2011	19:30:55	50.00000000	0.62487477	7.27424145	45.72801590	-0.10514721	8.02723789	1019.06665039	97.14399719	27.36631203
12/12/2011	20:00:55	50.00000000	0.56078506	10.32173252	45.96835327	-0.11015421	9.31303787	1021.51409912	97.33626556	27.38233376
12/12/2011	20:30:55	50.00000000	0.53274584	7.09158421	45.88022995	-0.10514721	9.64350128	1019.06665039	95.42959595	27.31423950
12/12/2011	21:30:55	50.00000000	0.54075706	8.75472641	45.93230438	-0.10915281	8.08732224	1020.26434326	97.99318695	27.33026123
12/12/2011	22:00:56	50.00000000	0.44862807	7.24860573	45.92829895	-0.10915281	7.63669157	1020.31640625	97.20808411	27.25415421
12/12/2011	22:30:56	50.00000000	0.54476267	3.53137183	46.00841141	-0.09513319	6.93370724	1019.48327637	95.99037933	27.26216507
12/12/2011	23:00:56	50.00000000	0.44462246	5.94116449	45.61185455	-0.05107150	7.95513725	1020.62884521	94.34007263	27.04986954
12/12/2011	23:30:56	50.00000000	0.48868415	2.78151608	45.69196701	-0.04706589	7.54656506	1018.70214844	94.62847900	27.33827209

DATE	TIME	Blower	CO	Damper Position	CH4	O2	PRESSURE	Temp.	FLOW	CO2
01/07/2011	00:00:27	55.00000000	2.53554964	0.23713386	39.47526550	0.54876828	7.13198471	900.44458008	110.71499634	26.84958839
01/07/2011	00:10:39	55.00000000	2.29921889	0.23713386	39.47125626	0.55377525	6.78950548	897.16400146	110.21829987	27.12597466
01/07/2011	01:10:39	55.00000000	2.48748231	0.24033839	39.52333069	0.56879628	7.04185867	900.49670410	111.14759827	26.76146507
01/07/2011	01:40:39	55.00000000	2.39935899	0.24033839	39.51932526	0.56579208	6.59723616	905.02703857	110.36250305	26.75745964
01/07/2011	02:10:39	55.00000000	2.18706179	0.24033839	39.24293900	0.55677944	6.77148008	903.46484375	111.61225128	26.85359383
01/07/2011	02:40:39	55.00000000	2.06689358	0.24033839	39.47125626	0.55277383	7.40837193	906.32885742	111.45202637	26.78950500
01/07/2011	03:10:39	55.00000000	2.36731410	0.24033839	39.60744858	0.53975564	6.74143791	905.13116455	110.53874969	26.90566635
01/07/2011	03:40:40	55.00000000	2.48347688	0.24033839	39.52333069	0.52874023	7.04185867	905.75604248	110.09011841	26.94972801
01/07/2011	04:10:40	55.00000000	2.34328055	0.23713386	39.59543228	0.51772481	7.17404366	906.69335938	112.74984741	26.94171715
01/07/2011	04:40:40	55.00000000	2.37131977	0.23713386	39.55937958	0.50871217	7.25816154	907.73480225	111.82054138	26.90967178
01/07/2011	05:10:40	55.00000000	2.34728599	0.24033839	39.67554474	0.50670940	6.69937897	903.20446777	110.79510498	27.18605995
01/07/2011	05:40:40	55.00000000	2.25115156	0.24033839	39.48327637	0.50871217	6.67534542	907.31823730	108.08731842	26.90566635
01/07/2011	06:10:40	55.00000000	2.34328055	0.23713386	39.67955017	0.49969956	6.62727833	903.51690674	111.61225128	26.89765549
01/07/2011	06:40:40	55.00000000	2.30322433	0.24033839	39.67554474	0.49869815	6.77748823	904.19384766	110.45864105	27.31423950
01/07/2011	07:40:40	55.00000000	2.32325244	0.24033839	39.47526550	0.45964348	6.64530325	902.26715088	106.66132355	27.13398552
01/07/2011	08:10:40	55.00000000	2.35129166	0.23713386	39.24293900	0.44161823	7.45043039	900.65289307	109.49729156	27.28219414
01/07/2011	09:10:40	55.00000000	2.41538143	0.23713386	39.20688629	0.41758460	7.04185867	902.47546387	107.39835358	27.55858040
01/07/2011	09:40:40	55.00000000	2.34328055	0.23392935	39.64750671	0.39955938	7.38433790	903.36071777	107.23812866	27.84297943
01/07/2011	10:10:40	55.00000000	2.31524134	0.23392935	39.88383484	0.37252152	7.22811937	906.32885742	105.90826416	27.95112991
01/07/2011	10:40:40	55.00000000	2.35129166	0.22752033	40.22831726	0.34348086	7.10795116	907.99517822	104.04966736	27.78689957
01/07/2011	11:10:40	55.00000000	2.21910667	0.22752033	40.30842972	0.33046263	7.64269972	911.53613281	102.62367249	27.53855324
01/07/2011	11:40:40	55.00000000	2.47546554	0.22752033	40.47666550	0.32845983	6.89765692	918.40979004	102.20708466	27.67474365
01/07/2011	12:10:40	55.00000000	2.38734221	0.22752033	40.42859650	0.32345283	7.05988359	917.83697510	104.62647247	27.81493950
01/07/2011	12:40:41	55.00000000	2.32325244	0.22752033	40.42859650	0.31844580	7.31824541	917.52453613	104.00159454	27.73482704
01/07/2011	13:10:41	55.00000000	2.34328055	0.22752033	40.43661118	0.31844580	7.49849796	913.35870361	104.48226929	28.17945099
01/07/2011	14:10:41	55.00000000	2.23512912	0.22752033	40.43260574	0.29841778	7.10795116	924.55438232	103.00820923	28.04325867
01/07/2011	14:40:41	55.00000000	2.35930300	0.22431582	40.51271439	0.26837572	6.79551363	927.88702393	111.03544617	27.90306282
01/07/2011	15:10:41	55.00000000	2.26316833	0.22431582	40.78509903	0.24734627	6.92169046	927.10595703	107.25415039	27.86300659
01/07/2011	15:40:41	55.00000000	2.39935899	0.22431582	40.74504089	0.25535750	7.11996794	923.87744141	107.30221558	28.18345642
01/07/2011	16:10:41	55.00000000	2.42739820	0.22431582	40.86921692	0.25435609	7.79891825	936.11456299	106.40496063	28.13538742
01/07/2011	16:40:41	55.00000000	2.41938710	0.22431582	40.59683228	0.24834767	6.81353903	932.15698242	106.16462708	28.06729317
01/07/2011	17:10:41	55.00000000	2.26316833	0.22431582	40.51271439	0.25335470	6.72341299	939.29101563	101.83856964	28.13939476
01/07/2011	17:40:41	55.00000000	2.41538143	0.22431582	40.50470352	0.23132384	7.25816154	941.79046631	101.10153961	27.95914078
01/07/2011	18:10:41	55.00000000	2.31924677	0.22431582	40.73703003	0.21430001	7.73282576	939.81170654	107.41437531	28.07930946
01/07/2011	18:40:41	55.00000000	2.44342065	0.22752033	40.82114792	0.21730421	7.21009398	948.14337158	106.96574402	27.90706825
01/07/2011	19:10:41	55.00000000	2.36330843	0.22752033	40.78509903	0.21730421	6.94572401	939.65551758	106.59722900	27.77488327
01/07/2011	19:40:42	55.00000000	2.32325244	0.22752033	40.82915878	0.22130983	7.05387545	942.10290527	106.19667053	28.24353981
01/07/2011	20:40:42	55.00000000	2.25916266	0.22752033	40.67293930	0.23532945	7.20408583	943.56097412	106.45303345	27.71079445
01/07/2011	21:10:42	55.00000000	2.36731410	0.22752033	40.68896103	0.24534348	7.04185867	938.92645264	108.69616699	27.45443535
01/07/2011	21:40:42	55.00000000	2.39535332	0.22752033	40.62487411	0.26737431	7.87702799	934.34405518	112.86199951	27.58261490
01/07/2011	22:10:42	55.00000000	2.41938710	0.22431582	40.73302460	0.28039253	7.11996794	940.33245850	107.89505005	27.25815964
01/07/2011	22:40:42	55.00000000	2.50350475	0.22752033	40.73703003	0.29240936	6.72341299	932.10491943	113.74323273	27.41037369
01/07/2011	23:10:42	55.00000000	2.41137576	0.22752033	40.78109360	0.30342478	7.78690147	937.20806885	111.40396118	27.30222130
01/07/2011	23:40:42	55.00000000	2.41137576	0.22752033	40.70498657	0.31644300	8.05127144	927.83496094	112.17303467	27.30222130

Environmental Protection Agency

Guidance to completing the PRTR workbook

AER Returns Workbook

Version 1.1.13

REFERENCE YEAR	2011

1. FACILITY IDENTIFICATION

Parent Company Name	Kilkenny County Council
Facility Name	Dunmore Landfill
PRTR Identification Number	W0030
Licence Number	W0030-02

Waste or IPPC Classes of Activity

No.	class_name
	Specially engineered landfill, including placement into lined discrete cells which are capped and isolated from one another and the
3.5	environment.
3.1	Deposit on, in or under land (including landfill).
	Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending
3.13	collection, on the premises where the waste concerned is produced.
	Surface impoundment, including placement of liquid or sludge
3.4	discards into pits, ponds or lagoons.
	The treatment of any waste on land with a consequential benefit for
4.10	an agricultural activity or ecological system.
	Use of waste obtained from any activity referred to in a preceding
4.11	paragraph of this Schedule.
	Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is
4.13	produced.
	Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological
4.2	transformation processes).
4.3	Recycling or reclamation of metals and metal compounds.
4.4	Recycling or reclamation of other inorganic materials.
	Use of any waste principally as a fuel or other means to generate
4.9	energy.
Address 1	Dunmore
Address 2	Co. Kilkenny
Address 3	
Address 4	
	Kilkenny
Country	Ireland
Coordinates of Location	-7.26476 52.6946
River Basin District	IESE
NACE Code	3821
Main Economic Activity	Treatment and disposal of non-hazardous waste
AER Returns Contact Name	Alan Rhatigan
AER Returns Contact Email Address	alan.rhatigan@kilkennycoco.ie
AER Returns Contact Position	A/Supervisor
AER Returns Contact Telephone Number	056 7794490
AER Returns Contact Mobile Phone Number	087 7656895
AER Returns Contact Fax Number	056 7767859
Production Volume	0.0
Production Volume Units	
Number of Installations	0
Number of Operating Hours in Year	0
Number of Employees	4
User Feedback/Comments	Landfill fully capped since dec 2010 all gas generated is flared
Web Address	

2. PRTR CLASS ACTIVITIES

Activity Number	Activity Name
5(d)	Landfills
5(c) 5(d) 50.1	Installations for the disposal of non-hazardous waste Landfills General

3. SOLVENTS REGULATIONS (S.I. No. 543 of 2002)

Is it applicable?	
Have you been granted an exemption ?	
If applicable which activity class applies (as per Schedule 2 of the regulations) ?	
Is the reduction scheme compliance route being used ?	

4.1 RELEASES TO AIR Link to previous years emissions data | PRTR# : W0030 | Facility Name : Dunmore Landfill | Filename : W0030_2011.xls | Return Year : 2011 | 30/03/2012 15:40

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

RELEASES TO AIR					Please enter all quantities in this section in KGs			
POLLUTANT		METHOD				QUANTITY		
			Method Used					
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
01	**Methane (CH4)**	E	ESTIMATE		0.0	0.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION B : REMAINING PRTR POLLUTANTS

RELEASES TO AIR					Please enter all quantities in this section in KGs			
POLLUTANT		METHOD				QUANTITY		
			Method Used					
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION C : REMAINING POLLUTANT EMISSIONS (As required in your Licence)

RELEASES TO AIR					Please enter all quantities in this section in KGs			
POLLUTANT		METHOD				QUANTITY		
			Method Used					
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

Additional Data Requested from Landfill operators

For the purposes of the National Inventory on Greenhouse Gases, landfill operators are requested to provide summary data on landfill gas (Methane) flared or utilised on their facilities to accompany the figures for total methane generated. Operators should only report their Net methane (CH4) emission to the environment under T(total) KG/yr for Section A: Sector specific PRTR pollutants above. Please complete the table below:

Landfill: Dunmore Landfill

Please enter summary data on the quantities of methane flared and / or utilised	**T (Total) kg/Year**	**M/C/E**	**Method Used**		**Facility Total Capacity m3 per hour**	
			Method Code	**Designation or Description**		
Total estimated methane generation (as per site model)	249044.0	E	Estimated	Estimated	N/A	
Methane flared	249044.0	M	Oth	On-Site Data	500.0	(Total Flaring Capacity)
Methane utilised in engine/s	0.0				0.0	(Total Utilising Capacity)
Net methane emission (as reported in Section A above)	0.0	E	Estimated	Methane generated minus n	N/A	

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE

Please enter all quantities on this sheet in Tonnes

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Haz Waste : Name and Licence/Permit No of Next Destination Facility Non Haz Waste: Name and Licence/Permit No of Recover/Disposer	Haz Waste : Address of Next Destination Facility Non Haz Waste: Address of Recover/Disposer	Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
						M/C/E	Method Used					
Within the Country	19 07 03	No	2645.0	landfill leachate other than those mentioned in 19 07 02	D9	M	Weighed	Offsite in Ireland	Kilkenny County Council Purcellsinch waste water treatment plant,Purcellsinch waste water treatment plant	Purcellsinch waste water treatment plant,.,Kilkenny,.,Ireland		

* Select a row by double-clicking the Description of Waste then click the delete button

Link to previous years waste data
Link to previous years waste summary data & percentage change