

COMHAIRLE CHONTAE AN CABHÁIN

CAVAN COUNTY COUNCIL



Annual Environmental Report 2008

Belturbet Landfill WL 92-1

Document Control Sheet

Document Title	Annual Environmental Report 2008
Document ID	WL92-1 AER 2008SFBB

Revision	Status	Author(s)	Issue Date
001	Draft	SF	26/05/09
002	Checked By	PMcG	27/05/09
003	Final Issue	SF	27/05/09



Cavan County Council

Comhairle Chontae an Chabháin



Courthouse

Teach Na Cúirte

Cavan

An Cabháin

Telephone Numbers

Central Council
049 437 8300

Motor Tax
049 437 8430

Planning
049 437 8600

Corporate Services
049 437 8601

Johnston Central Library
049 437 8500

Finance Department
049 437 8300

Roads
049 437 8300

Housing
049 437 8300

Community & Enterprise
049 437 8602

Water Services
049 437 8300

Declaration

Cavan County Council hereby certifies that the content of the full pdf AER W0092-012008AER.pdf uploaded to the EPA website is a true copy of the original AER.

Signed Sinead Fox Dated 12/June '09

Sinead Fox
Landfill Operations Manager
Cavan County Council

Contents

1.	Introduction.....	1
2.	Waste Management at the Facility.....	1
3	Restoration of Completed Cells.....	2
4	Summary Report on Emissions and Environmental Monitoring.....	3
5.	Environmental Objectives and Targets.....	5
6.	Management Structure.....	6
7.	Reporting of Incidents.....	6
8.	Financial Provision.....	6

List of Tables

Table 2.1a	Waste Quantities & Compositions	1
Table 2.1b	Waste Quantities.....	1
Table 4.1	Monitoring Schedule & Locations.....	3
Table 5.1	Environmental Targets & Objectives.....	5
Table 6.1	Management Structure 2007-2009.....	6

List of Appendices

Appendix 1	Annual report of Ground Water and Surface Water Monitoring Results
Appendix 2	Updated Site Map

1. Introduction.

Belturbet Landfill has been operated as waste disposal facility by Cavan County Council since the late 1979/1980. The site was operated as a traditional landfill and is located off the Belturbet Ballyconnell road (R200) approximately 4.5km west of Belturbet on the north side of the roads in what was limestone quarry and comprises of some 1.65 acres. The rock is composed of the Darty Limestone Formation from the Lower Carboniferous period.

A Waste Licence for the facility was issued by the EPA on 13th February 2002, Ref WL 92-1. Condition 11.4 of Waste Licence requires the submission of an Annual Environmental Report for Belturbet Landfill facility. This document is produced in order to comply with requirements of Condition 11.4. The reporting period for the purposes of this Annual Environmental Report (AER) is January 1st 2008 to December 31st 2008.

This Annual Environmental Report (AER) has been prepared in accordance with the conditions of the Waste Licence and the EPA “Draft Guidance on Environmental Management Systems and Reporting to the Agency, 1999”.

The site at Belturbet was closed in February 2002. Prior to closing the site a temporary cap was placed on site. Final capping and restoration details are presented in section 3.

2. Waste Management at the Facility.

See the table 2.1 for quantities of waste accepted into the landfill from 1988 to 1999. There was no waste accepted into the facility during the reporting period 2008.

Table 2.1 Waste Quantities

<u>Year</u>	<u>Inert Waste</u>	<u>Non-Hazardous Waste (tonnes per annum)</u>	<u>Hazardous Waste (tonnes per annum)</u>	<u>Total Waste Quantities (tonnes per annum)</u>
1988	20	480	Minor Quantities	500
1989	20	480	Minor Quantities	500
1990	20	480	Minor Quantities	500
1991	20	480	Minor Quantities	500
1992	20	480	Minor Quantities	500
1993	20	480	Minor Quantities	500
1994	20	480	Minor Quantities	500

1995	26	624	Minor Quantities	650
1996	28	622	Minor Quantities	650
1997	32	668	Minor Quantities	700
1998	29	695	Minor Quantities	724
1999	38	912	Minor Quantities	950
<u>Totals</u>	<u>293</u>	<u>6881</u>		<u>7174</u>

Under the terms of Waste Licence 92-1 no other waste types are acceptable at Belturbet Landfill Site. At present there are no wastes accepted for any purpose.

Waste Licence 92-1 allows for the operation of a Civic Amenity Facility at Belturbet Landfill Site. To date there are no plans in place to operate such a facility at the site.

3. Restoration of Completed Cells

Cavan County Council has appointed consultants Malachy-Cullen to prepare a final restoration plan and detailed tender documents for site works. Further details of lining works were submitted to the Agency in the latest Waste Licence Application. Final restoration works, including capping of the site are planned for 2009 - 2010. Issues with landowners are slowing the process down dramatically. However some progress was made in 2008 and Cavan County Council hopes that final restoration and capping works will steadily progress.

The capping lining system will be constructed to a very high standard and within all contractual and EPA guidelines.

4. Summary Report on Emissions and Environmental Monitoring

Table 4.1 Monitoring Schedule

Belturbet Landfill				
Schedule D: Monitoring				
Rahaghan, Belturbet, Co. Cavan				
Landfill Gas	Noise	Surface Water	Groundwater	Leachate
Stations	Stations	Stations	Stations	Stations
MW5 in 2009	n/a	SW1 U/S not available yet	MW5	MW5
		SW2 D/S Lake		
<u>Note 1</u>	Additional Wells to be re-drilled when remediation works progress			

The required monitoring programme at Belturbet Landfill is specified in Schedule D of the waste licence 92-1. The emission limit values (ELV) are specified in Schedule C. However due to access issues with an adjoining landowner monitoring has not been carried out since 1999. In April 2008 these issues were somewhat resolved. Monitoring has now resumed and is carried out by BHP Laboratories on behalf of Cavan County Council and reported each quarter to the EPA. The frequency for reporting Environmental monitoring data is detailed in Schedule E of the licence. The following monitoring data will be reported to the Agency on a quarterly basis and as required from April 2008 onwards:

- Landfill Gas
- Surface water
- Groundwater

Private wells can be added to this list in 2009

Analysis relating to Groundwater and Surface waters will also be conducted by the EPA.

Landfill Gas

Schedule D.2 of the waste licence for the Belturbet landfill site, specifies the required gas monitoring programme. There was no gas monitoring carried out on site during the reporting period due to access issues. Groundwater wells will be drilled when capping works are complete to bring us into compliance with the licence. However in 2009 we hope to start to test a site borehole for landfill gas.

Landfill gas at the facility will be analysed on a quarterly basis by BHP Laboratories, New Road, Thomondgate, Limerick by means of an Infra-Red Gas Analyser (GA2000) which is calibrated once annually. It is believed that the quantities and constituents of Landfill gas being generated are not having a significant impact on the environment. The Annual PRTR will be submitted to the Agency as part of this annual report. Gas emissions will be controlled by installing a passive trenching and venting system in the capping layer during final capping works.

Noise Monitoring

Schedule D.3 of the waste licence 92-1 specifies the required monitoring noise programme. There has been no noise monitoring for this reporting period. The landfill site is not in operation and there are no night time noise sources on site. Therefore there is no need for noise monitoring at the moment. However when the capping works commence Cavan County Council will arrange for noise monitoring during the period of works.

Surface Water

Schedule D.5 of the waste licence, specifies the required surface water monitoring programme. See the attached annual monitoring report for surface water results. It is summarised that the landfill is thought to have no impact on surface water quality.

Groundwater

Schedule D.5 of the waste licence, specifies the required surface water monitoring programme. See the attached annual monitoring report for surface water results. It is summarised that the landfill is thought to have no impact on groundwater quality.

5. Environmental Objectives and Targets.

A total of 9 Targets and Objectives have been identified

categories:

- 9no. Licence Related Targets and Objectives

These targets and objectives are listed in Tables 5.1 and 5.2 below which also identifies progress to date in relation to these targets.

Table 5.1 Environmental Targets & Objectives – Licence Related

No.	<u>Details</u>	<u>Target Date</u>	<u>Progress</u>
1	Management Structure		Included Table 6.1
2	Borehole Drilling Plans 2009	2009/10	Submitted April 2008
3	Annual Environmental Report	31/03/09	Prepared in May 2009
4	Submit updated Monitoring Schedule to EPA	June 2008	Up-coming
5	Record Keeping and Reporting		Ongoing
6	Landfill Gas Management		Ongoing
7	Surface Water Management		Ongoing
8	Topographical Survey	AER 2007	Included Appendix 2
9	Capping and Restoration 2008	2009/2010	Up-coming
10	Private Well Sampling	2009	

6. Management Structure

Under the terms of WL 92-1 Belturbet Landfill Site no longer accepts waste. The plan is for the site to be fully capped, restored and closed in 2009/10. In terms of general overseeing of site at its current status the management structure is listed below.

Table 6.1 Management Structure 2007-2008

Position	Qualifications	Duties
A/SEO	Padraig McGivney	Oversee general supervision, monitoring and reporting of the site.
Landfill Operations Manager Cavan County Council	Sinead Fox BSc. Environmental Science, FAS Waste Management Training Course 2007	Responsible for general supervision, monitoring and reporting of the site.

Contact Person for Sanitary Authority: Padraig McGivney, A/Senior Executive Officer,
Waste Management Section,
Cavan County Council.

7. Reporting of Incidents

All incidents are reported to the Agency in line with the requirements of Waste Licence ref. 93-1. Copies of all Incident Reporting documentation are available for inspection. There were no incidents recorded for this reporting period. There were no complaints recorded for this reporting period.

8. Financial Provision.

Provision will be made in Cavan County Council Official Estimates for Charges as required under Condition 12 of Waste Licence Ref. 92-1.

APPENDIX 1

APPENDIX 2

APPENDIX 3



AER Returns Worksheet

Version 1.1.04

REFERENCE YEAR	2008
-----------------------	------

1. FACILITY IDENTIFICATION

Parent Company Name	Cavan County Council
Facility Name	Belturbet Landfill
PRTR Identification Number	W0092
Licence Number	W0092-01

Waste or IPPC Classes of Activity

No.	class_name
3.1	Deposit on, in or under land (including landfill).
3.4	Surface impoundment, including placement of liquid or sludge discards into pits, ponds or lagoons.
3.13	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.
4.2	Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes).
4.3	Recycling or reclamation of metals and metal compounds.
4.4	Recycling or reclamation of other inorganic materials.
4.11	Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule.
4.13	Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced.

Address 1	Rahaghan
Address 2	Belturbet
Address 3	Co Cavan
Address 4	
Country	Ireland
Coordinates of Location	547400.000
River Basin District	GBNIIENW
NACE Code	3821
Main Economic Activity	Treatment and disposal of non-hazardous waste
AER Returns Contact Name	Sinead Fox
AER Returns Contact Email Address	sfox@cavancoco.ie
AER Returns Contact Position	Landfill Operations Manager

AER Returns Contact Telephone Number	049-4437 8418
AER Returns Contact Mobile Phone Number	087 980 8507
AER Returns Contact Fax Number	
Production Volume	0.0
Production Volume Units	
Number of Installations	0
Number of Operating Hours in Year	0
Number of Employees	0
User Feedback/Comments	Closed landfill, fully remediated
Web Address	

2. PRTR CLASS ACTIVITIES

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

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

Is it applicable?	no
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

#VALUE!

19/06/2009 15:2

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

RELEASES TO AIR								
POLLUTANT		METHOD			QUANTITY			
No. Annex II	Name	M/C/E	Method Used		Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
			Method Code	Designation or Description				
03	Carbon dioxide (CO2)	C	MAB	GASSIM	73700.0	73700.0	0.0	0.
01	Methane (CH4)	C	MAB	GASSIM	26400.0	26400.0	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								
POLLUTANT		METHOD			QUANTITY			
No. Annex II	Name	M/C/E	Method Used		Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
			Method Code	Designation or Description				
					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								
POLLUTANT		METHOD			QUANTITY			
Pollutant No.	Name	M/C/E	Method Used		Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
			Method Code	Designation or Description				
					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:

Belturbet 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)	0.0				N/A
Methane flared	0.0				0.0
Methane utilised in engine/s	0.0				0.0
Net methane emission (as reported in Section A above)	26400.0	C	MAB	GASSIM	N/A

(Total Flaring Capacity)
(Total Utilising Capacity)

4.2 RELEASES TO WATERS

#VALUE!

#####

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

Data on ambient monitoring of storm/surface water or g
submitted under AER / PRTR Reporting as this only concerns Releases from your facility

ce requirements, should NOT be

RELEASES TO WATERS								
POLLUTANT					QUANTITY			
No. Annex II	Name	M/C/E	Method Used		Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
			Method Code	Designation or Description				
					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 WATERS								
POLLUTANT					QUANTITY			
No. Annex II	Name	M/C/E	Method Used		Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
			Method Code	Designation or Description				
					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 WATERS								
POLLUTANT					QUANTITY			
Pollutant No.	Name	M/C/E	Method Used		Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
			Method Code	Designation or Description				
					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

4.3 RELEASES TO WASTEWATER OR SEWER

#VALUE!

19/06/200
9 15:32

SECTION A : PRTR POLLUTANTS

OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER								
POLLUTANT		METHOD			ADD EMISSION POINT	QUAN TITY		
			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

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

SECTION B : REMAINING POLLUTANT EMISSIONS (as required in your Licence)

OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER								
POLLUTANT		METHOD			ADD EMISSION POINT	QUAN TITY		
			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

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

4.4 RELEASES TO LAND

#VALUE!

19/06/2009 15:23

SECTION A : PRTR POLLUTANTS

RELEASES TO LAND							
POLLUTANT		METHOD			QUANTITY		
No. Annex II	Name	M/C/E	Method Used		Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year
			Method Code	Designation or Description			
					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 POLLUTANT EMISSIONS (as required in your Licence)

RELEASES TO LAND							
POLLUTANT		METHOD			QUANTITY		
Pollutant No.	Name	M/C/E	Method Used		Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year
			Method Code	Designation or Description			

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE

#VALUE!

19/06/2009
15:32

Transfer Destination	European Waste Code	Hazardous	Quantity T/Year	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Name and Licence / Permit No. of Recoverer / Disposer / Broker	Address of Recoverer / Disposer / Broker	Name and Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)	Licence / Permit No. of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
						M/C/E	Method Used					

ADD NEW ROW DELETE ROW*

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